SAFETY NEWS



THE NEW M·S·A AIR-MASK

. . . available with AIR or OXYGEN

Improved design, and the selective use of materials to fully meet service conditions put the new M.S.A. Air-Mask in a class by itself.

This unit, designed to bring maximum protection and comfort to users in unbreathable atmospheres, supplies air or oxygen in exact accordance with breathing needs. During exhalation, the flow ceases—an economy measure that greatly lengthens service life.

Here are a few of the construction details-

- ...a small attractive demand regulator.
- ...large, easy-operating, all metal handwheels-longer wear.
- ...large, well-defined figures on pressure gauge for easy reading.
- ...the high pressure hose is made of wire-inserted neoprene for increased wear.
- ...the redesigned cylinder valve connects directly to the cylinder and the improved working parts of the valve provide greater serviceability and less maintenance.
- ...the compact cylinder frame fits close to the body.
- ...the nylon harness is easily adjusted and provides maximum strength. It is highly chemical and water-resistant,
- ...the new color scheme is an attractive dark green and yellow. This striking appearance makes it easier to spot men in working areas.

Write today for complete details on this new M.S.A. Air-Mask . . . you'll be taking a step forward in bringing greater efficiency, safety to your fire-fighting operations.







Call the M.S.A. man on your every safety problem . . . his job is to help you

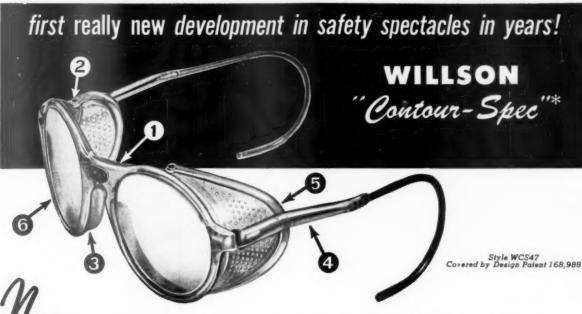
MINE SAFETY APPLIANCES COMPANY

201 North Braddock Avenue, Pittsburgh 8, Pa.
At Your Service: 76 Branch Offices in the United States

MINE SAFETY APPLIANCES CO. OF CANADA, LTD.

Toronto, Montreal, Calgary, Edmonton, Winnipeg, Vancouver, Sydney, N.S.
Representatives in Principal Cities in Mexico, Central and South America
Cable Address: "MINSAF" Pittsburgh





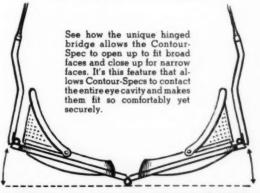
lew... hinged bridge gives snug, comfortable fit . . . self-adjusting to any facial contour!

- New hinged bridge combines the flexibility of cuptype goggles with the lightweight, compact protection of safety spectacles.
- One all-purpose size permits universal fit. Bridge hinge gives automatic adjustment to any bridge width from 18-26 mm.; one eye size—47 mm.—fits everybody. No need to stock a variety of bridge and eye sizes.
- 3 Plastic nose-and-cheek pads provide full closure around eye cavity.
- 4 Contour-shaped adjustable plastic-and-cable temples hold spectacles firmly in place.
- Matching sideshields are perforated plastic, providing protection at sides—fold back for pocket compactness.

Order a supply of Contour-Specs from your Willson distributor. Let your workers try their amazingly greater comfort, and see how they're preferred over ordinary safety spectacles!

6 Butyrate frame—toughest plastic used for spectacles. Standard frame is flesh colored, fitted with 6-curve Willson Super-Tough® glass lenses. Available also with green frame and side-shields, fitted with Willsonite® Super-Tough green glass lenses.

Minged to fit any face snugly!



*Trademark

More Than 300 Salety Products

WILLSON

Established 187

WILLSON PRODUCTS, INC. · 205 WASHINGTON ST., READING, PA.



COVER DESIGN BY WALLY KENNETH

EDITORIAL

17 The "X" Factor-Henry T. Heald

FEATURE ARTICLES

- 18 Have Faith In the Individual-Crawford H. Greenewalt
- Crisis of Opportunity (Diary of a Safety Engineer) -Bill Andrews
- 22 "It Was a Great Congress"
- 24 When You Use Organic Solvents-Howard M. Gadberry
- 28 Protection + Correction-Herman Sager, O.D.
- 29 Accidental?-Robert D. Gidel
- An Appeal to the Nation
- 31 In Print and On the Air
- 32 Protective Barriers for Super-Voltage X-Ray
- 34 Illinois Program Reaches Small Business—A. M. Baltzer
- 36 Heard at the Congress
- I Am an Association Award-Robert Currie 38
- 46 General Chairmen, NSC Sections, 1954-55
- Safety's Supermarket
- 82 Name Your Load

DEPARTMENTS

- 21 The Lighter Side
- 40 Wire from Washington
- 42 The Safety Valve
- 44 Accident Barometer
- 48 Green Cross News
- 50 Industrial Health
- 52 Safety Library
- 53 President's Medal Awards
- 54 Coming Events
- 56 For Distinguished Service

- 58 Cases for Comment
- 60 Small Businesses and Associations
- 62 Personals
- 63 Obituary
- 97 What's New in Council Services
- 98 Safety Posters
- 101 Safety Films
- 103 New Safety Equipment
- 113 Calendar Contest Winners

33,200 copies of this issue were printed.

National Safety Council

Chartered by the Congress of the United States



HOME OFFICE 425 North Michigan Ave. Chicago 11, Illinois EASTERN OFFICE

800 Chrysler Building New York 17, N. Y.

WESTERN OFFICE 950 California Street San Francisco 8, Calif.

Chairman of the Trustees: W. S. S. Rodgers, Chairman of the Board, The Texas Company, New York.

Chairman, Board of Directors E. F. DU PONT, director, Employees Relations Department, E. I. du Pont de Nemours & Co., Wilmington, Del.

President NED H. DEARBORN, Chicago

Vice Presidents:

For Farms

GUY L. NOBLE, managing director, National Committee on Boys and Girls Clubs, Chicago.

For Finance, and Treasurer
WILLIAM H. Lowe, treasurer, Inland
Steel Co., Chicago.

W. A. Stewart, president, American Optical Co., Southbridge, Mass.

For Industry

H. J. SPOERER, director of Industrial Relations, The Youngstown Sheet and Tube Co., Youngstown, Ohio.

For Local Safety Organizations ROBERT R. SNODGRASS, president, Atlas Auto Finance Co., Atlanta, Ga.

For Membership

ROBERT T. ROSS, manager, Employee Services, Ford Motor Co., Dearborn,

For Public Information

BOYD LEWIS, vice-president and executive editor, NEA Service, Inc., New York.

For Schools and Colleges

DR. LOWELL B. Frier, chairman, North Central Association of Colleges and Secondary Schools, University of Illinois, Urbana, Ill.

For Traffic and Transportation

FRANKLIN M. KREML, director, Traffic Division, International Association of Chiefs of Police, Evanston, Ill.

For Women's Activities

MISS MARION E. MARTIN, Commissioner of Labor and Industry, State of Maine, Augusta, Me.

CARMAN FISH, Editor

Tom Dopps, Managing Editor

JOHN GWIN, Associate Editor

RALPH Moses, Art Director

H. W. CHAMPLIN, Advertising Manager

7

NORVAL BURCH, Editorial Director, Council Publications

NATIONAL SAFETY NEWS is published monthly by National Safety Council. Copyright 1954 by National Safety Council. Printed in U.S.A. Entered as second class matter June 21, 1921, at the Post Office at Chicago, Illinois, under the act of March 3, 1879. Subscription rate: to members, \$7.50 per year, single copies 55 cents; to non-members, \$7.50 per year, single copies, 75 cents. Quantity prices for yearly subscriptions and single issue on request. Member Audit Bureau of Circulation: Indexed in Industrial Arts Index.

Statements and opinions advanced in signed articles are personal expressions of the authors, not necessarily those of the National Safety Council. NATIONAL SAFETY NEWS is published



LOW OXFORD (4381) with leather-lined steel toe cap, Tri-Vac sole. Also available in 6-inch shoe-#4111.



Sensational new Thom McAn with non-skid Tri-Vac sole

Exciting dress-weight oxford combines new safety, comfort, and good looks.

This best-selling Thom McAn looks plenty good to the men in your plant. They like its clean, comfortable lines and fine-quality leather. They want it because they already know how well it works.

On wet, oily or icy surfaces, the Thom McAn Tri-Vac offers increased safety these three ways. 1. Multiple soft ribs insure squeegee-like brake action. 2. Vacuum suction-gripping is increased by the cup-inside-cup construction. 3. Countersunk, liquid-trapping channels around each cup produce drier, safer tread.

Developed by the Navy for combat conditions, the Tri-Vac is made of Neoprene and is highly resistant to acid, chemicals, oil and gas. Thom McAn offers the Tri-Vac sole at a price equal to or lower than that of most safety shoes.

SOLD TWO WAYS: 1. At Thom McAn Stores. 2. Direct to your plant. Send today for full details of our plant-sale plan and Thom McAn's 4-way employee purchase plan—plus descriptions of the Thom McAn Safety Shoe line. Write: Thom McAn Safety Division, 25 W. 43 St., N. Y. 36.



A Division of the Melville Shoe Corporation



and or torque - specify Ampco Metal.

For tools to be used in the vicinity of acetylene or similar gases - specify Ampco Monelt Tools.

For tools that have cutting edges or gripping teeth specify Ampco Beryllium



for every job in hazardous locations. Ampco Safety Tools can't create dangerous sparks. That's why they're approved by Factory Mutual Laboratories and other leading safety authorities for use wherever there are inflammable dusts, liquids, gases, or vapors.

Select your Ampco Safety Tools from the largest line available anywhere more than 400 items. Play safe - order Ampco today. *Reg. U. S. Pat. Off.

Ampco Metal, Inc.

Milwaukee 46, Wisconsin

West of the Rockies it's Ampco Burbank Plant, Burbank, California In Canada Safety Supply Co., Toronto, Ontario

MULTI-PURPOSE WELSH-GUARDS

- One piece replaceable lens of impact resistant acetate.
- Available in clear or green.
- Fits over prescription glasses.
- Wide angle vision.



Protects against chemical splashes, spray, dust concentrations and foreign particles.

See your Safety Distributor for the full Welsh line.

WELSH MANUFACTURING COMPANY PAGNOLIA STREET - PROVIDENCE, R. I.

Established 1925

"Sabeguard Guards"
with Welshi Guards"

MERICAN-AFRANCE DRY CHEMICAL

PRESSURIZED IRE EXTINGUISHERS FOR FIGHTING CLASS B and C FIRES



MODEL



MODEL MODEL

Fire protection does not cost! It pays - with the money saved that an unchecked fire would incur.

The American-LaFrance Pressurized Dry Chemical Extinguishers offer fast, dependable fire protection against incipient flammable liquid or electrical fires, and will extinguish also other small skin-type fires which are not deep seated.

Write for illustrated literature, or for a demonstration. We have representatives in all principal cities.

Approved by Underwriters' and Factory Mutuals Laboratories for Class B and C fires.

Model number designates the pound capacity of each extinguisher.

our 2nd Century of Leadership in FIRE PROTECTION

MERICAN-LAFRANCE-FOAMITE ELMIRA-NEW YORK-U.S.A.

IN CANADA, LAFRANCE FIRE ENGINE & FOAMITE LTD., TORONTO



SAFETY LENS QUALITY IS NEVER A LUXURY



Bausch & Lomb P-57 safety glass with absorptive Ray-Ban Bal-SAFE lenses.

Get the extra safety in the extra quality of Bal-SAFE lenses

Even at a premium price—would you trust the safekeeping of your eyesight to anything less than the safest?

Competitively priced Bal-SAFE lenses are made from the finest optical glass, produced in the nation's only exclusively optical glass plant. They are products of precise, scientific manufacturing steps—grinding, polishing, edging—tempered to a high, uniformly accurate degree of impact resistance. For the safety of your workers, Bausch & Lomb lens technologists keep their finger on production quality every step of the way.

Be free of worry. Standardize on Bausch & Lomb safety eyewear—with the most dependable industrial lenses on the market today. Contact the representative in your area.



So workers see better! Bal-SAFE industrial lenses are finished to the same

critical standards as regular corrective

Where visual correction is needed, there's extra safety in Bal-SAFE lenses professionally prescribed, ground to the worker's prescription.



Just mail this coupon with your business letterhead to get your free copy of "Complete Eye Protection."

BAUSCH & LOMB OPTICAL COMPANY 90336 Smith St., Rochester 2, N. Y.

FOR WORKERS'

- Safety
- Health
- Comfort
- Efficiency

VANO[®] Design "A" VENTILATOR

Vano Design "A" cooling interior of furnace, supplying fresh air through 10 feet of "Ventube" to provide safety and comfort during repair weeky repair work.

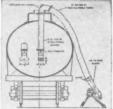
Vano Design "A" delivering fresh air to cable manhole, expelling sewer gas, making entrance safe in a few minutes.

few accessories feeds large air valume into tank car, driving out fumes, stagnant or hot air for workers' safety and comfort.











Vano Design "A" supplying fresh air in Reactor Room of Synthetic Rubber Plant.

Vano Design "A" Ventilator supply-ing fresh air to men working in wing compart-ments, fuselages,



Powered by a $\frac{1}{2}$ hp motor, and equipped with the exclusive Coppus axial-flow propellertype fan, this general-purpose blower delivers 1500 CFM of fresh air. It supplies ventilation for tanks, tank cars, drums, vats, underground cable manholes, pipe galleries, airplane wing compartments and fuselages, and other confined places. Weighs only 103 lbs. Uses 8"-diameter flexible canvas tubing ("Ventube").





VENTILATOR-EXHAUSTER



Vano Design "C" equipped with 8" digharge tubing removing welding



Vano Design "C" equipped with two suction lines removing welding fumes for opera-



For withdrawing welding fumes from confined places or directly from the welding rod ...or for expelling fumes or hot air from enclosed vessels. You can get it with 8" suction inlet for 8" non-collapsible tubing ...or with multiple inlet nozzles for 5", 4" or 3" suction hose. The discharge outlet takes 8" "Ventube". Powered by a 1/2 hp motor, it weighs only 85 lbs.

COPPUS ENGINEERING	CORP.	132 PAR	K AVENUE,	WORCESTER	2. MASS.
Please send information	on the f	Blowers th	at clear th	e air for Action	

- in tanks, tank care, drums, etc.
- in underground cable
- in aeroplane fusilages, wings, etc.
- on coke ovens.

(Write here my special ventilating roblem you may have.)

- on steam-heated rub-ber processes. general man cooling.
- around cracking stills. on boiler repair jobs. COOLING:
- motors, generators, switchboards. wires and sheets.
- exhausting welding fumes.

 stirring up stagnant air wherever men are working or material is drying.

-			-	94
D	W.	ß,	æ	SL.J

COMPANY

ADDRESS

CITY...

COPPUS "BLUE RIBBON" PRODUCTS — Designed for Your Industry, Engineered for You

Don't Buy Fire Equipment Piecemeal









Complete Line of Foam Products

THE CORRECT SYSTEM FOR YOUR PLANT

You'll save money and risk by calling in National Foam "fire engineers." They survey your plant, analyze every process, location, flammable liquid used, flash points, existing system, water supply, and other factors. They recommend a basic AER-O-FOAM System with manual or automatic control, stationary or mobile operation. They prescribe the proper equipment — Foam Chambers, Overhead Units, Dip-tank Systems, Nozzles, Extinguishers. After installation you receive a complete operating manual.

Only National offers you one source for system design, equipment, and instant, positive, fire-tested AER-O-FOAM. Call on National today to discuss your flammable liquid risks.

Write for new, free booklet, "Foam Fire Protection."

NATIONAL

FOAM SYSTEM INCORPORATED

Headquarters for Foam Fire Protection - WEST CHESTER, PA.



Braided Wire Rope Slings

Materials handling—from unloading a car of pipe to handling a 200-ton generator—requires a wide variety of safe, economical, easy-to-handle slings. The sizes and types of Macwhyte Slings are practically unlimited—they are available in many standard designs or can be custom-made. Bulletin lists and illustrates many types and body styles in Round-Braided, Flat-Braided and Single-Part Slings. Specify Bulletin 5308.

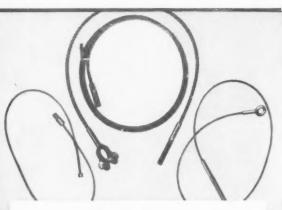
The proper choice from this wide variety of wire rope products means —

LONGER and SAFER SERVICE



Wire Rope

Proper selection of wire rope is most important in getting safe, economical operation. To provide the right ropes for each of the many kinds of equipment, Macwhyte Company makes a thousand and one types and sizes. Included are PREformed Internally Lubricated Ropes, Galvanized Ropes, Stainless Steel, and Monel Metal Ropes. Request Catalog C.16.



Wire Rope Assemblies

Safe-Lock Wire Rope Assemblies provide a unit of wire rope with permanently attached fittings made to specified size, length, and strength needed. A wide selection of fittings and wire rope are made for use on small gasoline powered equipment; outboard motors; mining and excavating machines; agricultural implements; automotive, aircraft, marine, and laboratory equipment. Ask for Catalog 5201.

Recommendations for the correct wire rope product for your needs will be gladly furnished.

MACWHYTE

MACWHYTE COMPANY

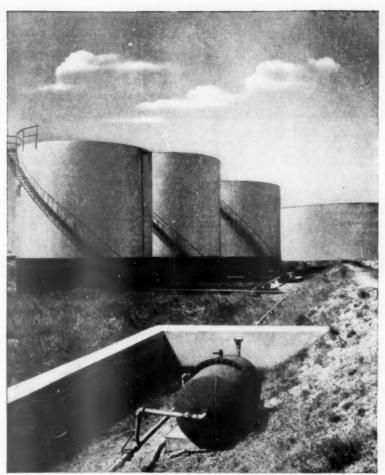
2902 Fourteenth Avenue Kenosha, Wisconsin

Manufacturers of Internally Lubricated PRE-formed Wire Rope, Braided Wire Rope Slings, Aircraft Cables and Assemblies, Galvanized, Monel Metal, Stainless Steel Wire Rope, and Wire Rope Assemblies.



Mill Depots:

New York • Pittsburgh • Chicago St. Paul • Ft. Worth • Portland Seattle • San Francisco • Los Angeles



Shown in foreground is operating unit of Rockwood SpotPROTECTION System protecting oil storage at SOUTHWEST OIL REFINERY.

New Way to Protect a Danger Spot

The tank in the foreground is compact but powerful in action. It can stop a fire that could destroy a fortune.

Rockwood now offers you a compact, moderately priced, yet complete unit, expertly engineered to snuff out fires instantly. Rockwood's storage and automatic proportioning system, an exclusive patented feature, make this compact unit an eveready watchdog to protect your property, lives and continuing business.

Here's how it works. The tank contains Rockwood FOAM liquid which, in an emergency, is automatically pro-

portioned into the water. This mixture is then discharged from jet-action Rockwood's Double Barrelled FOAM Maker Chamber onto the surface of the burning oil — forming a fast flowing blanket of FOAM. This blanket covers the fire and strangles it.

Chamber onto the surface of the burning oil —forming a fast flowing blanket of FOAM. This blanket covers the fire and strangles it.

Danger "spots" can result in loss of lives, money and property. Save these with SpotPROTECTION from this new compact, moderately priced unit. Is there a danger "spot" on your premises? Don't leave it unprotected. Find out how Rockwood can engineer water to cut fire losses for you.

ROCKWOOD SPRINKLER COMPANY

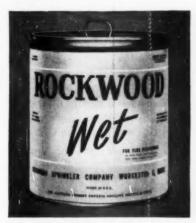
Engineers Water . . . to Cut Fire Losses

How Rockwood

Engineers Water
to Cut Fire Losses



Rockwood Double Strength Foam clings to metal surfaces as an insulator, flows freely at sub-zero temperatures. Excellent for extinguishing fires in gasoline, benzol and other highly volatile liquids as well as ordinary combustibles.



Reckwood Wet makes water go farther. One part of Wet mixed with 99 parts water, increases penetration and extinguishing action of water. A "must" for deep seated fires and where water is scarce. Helps reduce amount of time and manpower.

SEND FOR THIS INFORMATIVE BOOKLET

ROCKWOOD SPRINKLER COMPANY Portable Fire Protection Division 332 Harlow Street Worcester 5, Mass,

Please send me your illustrated booklet on Rockwood fire-fighting

Company____

Street _____City_____
Zone ____State__

onehouse



WEAR GOGGLES CHIPPING OR GRINDING

WEAR GOGGLES OR USE SHIELD

FOR INDUSTRIAL ACCIDENT **PREVENTION**

CAUTION

YOU ARE FORBIDDEN TO WORK HERE WITHOUT GOGGLES



A PAIR OF SAFETY GOGGLES ASK YOUR FOREXUN



WEAR GOGGLES WHEN USING THIS MACHINE



SAFETY SHOWER ACID BURNS

SAVE YOUR EYES WEAR COGGLES

SIGHT is a gift to be treasured. Yet carelessness too often robs the worker of this, his priceless possession.

> Impress upon your employees the vital importance of protecting their eyes. Wearing goggles is one very sure way. Keep telling them-with the right signs, either stock or special worded.

STONEHOUSE SIGNS

The loss or impairment of hearing is another hazard. Protect your workers' ears from shattering, harmful noises in the plant. A worker who can't hear well is a real accident hazard.



If you haven't our complete Catalog—64 pages, in full color—it's free on request.

puse

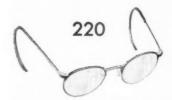
SIGNS, inc. MANUFACTURERS . Stonehouse Bldg., 9th at Larimer Denver 4, Colorado

NTION · steel SIGNS IN STANDARD COLORS AND DESIGNS

Mow! YOU CAN ORDER ANY OF

THESE PENDPTIC SAFETY PRODUCTS

RECT FROM THE MANUFACTURER...



Metal Frame spectacle type safety goggles . . . five models in the series.

Measure Penoptic quality by your tests or by Federal Specifications . . . each item will conform with the high quality standards demanded by a safetyconscious industry. Sixty-eight years of ophthalmic experience has catapulted Penoptic safety products to quality leadership in the safety field. Penoptic's manufacturer-to-you distribution speeds service . . . reduces your costs . . . enables you to deal with the people directly responsible for product performance.



Chippers' cup-type safety goggles . . . with new 3-way ventilation.



Plastic Frame spectacle type safety goggles . . . five models in the series.



Plastic all-purpose cover goggle . . . fits over large frame personal alasses.



Welders' cup-type goggles . . . featuring better ventilation.



Welding Helmets of fiber glass or fiber . . . nine models in the line.



Face Shields . . . a model for every face shield requirement.



Street



For prices and full information mail coupon directly to Pennsylvania Optical Co., Reading, Pa. or 1712 Taraval St., San Francisco 16, Cal.

READING, PENNSYLVANIA

Please send full information on Penoptic line to:

Company

City & State



Many times a year we have calls for slings that are different from the usual run; slings for special conditions where a standard model wouldn't do. Whenever you encounter a problem like this, by all means call us. We can design and make the sling you want, no matter how complex—and it will do the job you want it to do.

Shown here is a special bridle type of sling that's adjustable for length—an advantage where clearance must be considered. This assembly consists of two Bethlehem braided slings with thimble ends, and two sets of grommet links. One view shows the assembly fully extended. The other shows how the length can be adjusted. It can be shortened still more by hooking into the topmost links.

Your own set-up may never require a sling like this. But whatever you do need, Bethlehem can make it for you, including all the standard grommet, braided, single-part, and bridle types.

When working out a lifting problem requiring slings, ask for the help of a Bethlehem engineer. You'll find him well qualified to aid you in matters of this kind. There is no charge for his services, of course, and he'll stay at your plant as long as you need him.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation



BETHLEHEM WIRE ROPE SLINGS

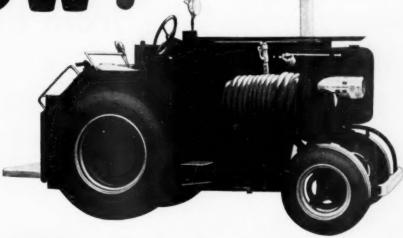






New!

HIGH MOBILITY UNIT - GETS THERE AND PUTS OUT FIRES FAST!



FIRE TRAC

FOR EFFICIENT, IN-PLANT FIRE PROTECTION

1 - Man Operation — even a fairly inexperienced man is an efficient fire fighter with Fire Trac. Simplified controls, high efficiency equipment — and great maneuverability (Fire Trac turns in less than its length) — gives your plant low-cost, effective, on the spot fire protection.

No Special Housing — Fire Trac can be kept in an unused corner of your plant — gets thru narrow aisles easily.



Douses 9 — 20" x 20" fires using only 112 gals. water from its own tank, in test at Holden, Mass. Fire Protection Lab.

LOW COST — Fire Trac gives outstanding fire protection —

Costs less than the price of a special housing for a regular industrial fire truck.



Free! for full information and literature write

CMC COMPANY, Xenia, Ohio

Here's SAFE & SOUND Footing from heel to toe







New BER HY-CLIMBER

HY-TEST

From POLE CLIMBING to LOGGING to MINING ... on every rough-and-ready job where heavy-duty boots are worn ... you'll find Hy-Test's new Hy-Climber the perfect answer! And the reason is simple. Hy-Climber and all Hy-Test safety boots and safety shoes (more than 80 of them) are so rugged, so safe, so well built for the job that they have become the world's leading seller in the field. Write for more details and our catalog.

HY-TEST SAFETY SHOES

Division of International Shoe Company
St. Louis 3, Mo. Philadelphia 23, Pa.

- * Black WATERPROOF upper leather
- * DOUBLE thickness of leather completely encircles the foot
- * HEAVY-DUTY sole, actually five-eighths inch thick
- * Extra thick BOL TAN sweat-resistant leather insole
- ★ One-piece molded LONG INSIDE SOLE LEATHER COUNTER for full arch protection and comfort
- * LOGGER-TYPE heel for extra safety on the job
- Special designed, extra wide TEMPERED STEEL SHANK for rigidity and durability
- Completely DACRON stitched; BRASS fittings, eyelets and stud hooks; rawhide leather laces
- * And, of course, the famous austempered ANCHOR FLANGE steel box toe . . . Keynote for Extra Safety

WHY SETTLE FOR LESS? . . .

Buy HY-TEST and Get the Best!

THE "X" FACTOR

By HENRY T. HEALD

THE NATIONAL SAFETY COUNCIL is a nation-wide educational agency, and this central fact is the basis of these remarks.

What we are really trying to do at all levels of education is to awaken, and, in a sense, to adapt, a whole population to the hazards of a mechanized and mobile era.

The single aim is to bring to everyone as he drives, works, or stays at home, an awareness that it is better to be safe—that intelligent safety has a higher personal and social value than reckless, dangerous action. We are striving to condition the individual so that he will react safely to situations in which danger is an element, so that, in short, safety becomes a habit.

In a world where hazards form a normal part of daily living, we cannot expect man to drop everything and hide. We can, however, teach him to do whatever he is doing *safely*. Some of the most innately dangerous industrial, driving and military operations are often the safest.

Conversely, day-to-day activities which seem to have no element of danger often turn out to be the most dangerous.

Why do some of man's most dangerous activities turn out to be among the safest?

There is an important "x" factor, and that factor is attitude. It is the attitude that makes the individual have a positive desire to take every precaution in guaranteeing the efficiency—and hence the safety—of the activity in which he is engaged.

This attitude is frequently lacking in commonplace activities. They become routine and monotonous. And danger creeps in.

The problem is to impress indelibly on the mind of the individual that there is a standard, safe way to carry on most activities. Once he has learned the safe way and follows it, the battle is won. To adopt a standard way of performing a task, we must first develop a desire to adopt it. It is one of education's first aims to develop socially desirable attitudes.

What is needed to carry on an activity successfully and, of course, safely?

First, knowledge of what to do.

Second, skill to apply the knowledge.

Third, desire to use the knowledge and skill in the right way. Without the third, the first two have little value. It is significant that research studies are isolating the factor of attitude as the key to better safety records.

It is clear that safety educators must concentrate on the development of a proper state of mind. They must continue, of course, to supply knowledge and teach the skill to use it. But mostly they need to emphasize constructive attitudes toward safety.

Dr. Henry T. Heald is Chancellor, New York University. This editorial is based on excerpts from his address at the Annual Meeting, 42nd National Safety Congress.



Have Faith in the Individual

By CRAWFORD H. GREENEWALT

Both as a scientist and as a business executive, Crawford H. Greenewalt has played an important part in chemistry's contributions to industrial progress and higher standards of living. A graduate of Massachusetts Institute of Technology with the degree of B.S. in Chemical Engineering, he has been associated with E. I. du Pont de Nemours & Co. since 1922, becoming president in 1948. His personal achievements have won for him honorary degrees from several prominent universities. The accompanying address was delivered at the Banquet of the 42nd National Safety Congress and was broadcast over the CBS radio network.

IT IS A PLEASURE for me to participate in any activity of the National Safety Council because it has dealt valiantly and successfully for so many years with a program which has been endorsed by so many and practiced by so few.

I wish that everyone in the country could sit in on one of your annual meetings. For these discussions are salutary and sobering, in emphasizing to all who will listen that nothing can be taken for granted. Even the surest of things is subject to sudden and violent upset. Just in the past three weeks, for example, we have seen the eternal verities upset in several other areas. We have observed the French agreeing to arm the Germans. We have witnessed the public parting of Mr. and Mrs. Joe DiMaggio. We have been stunned by the disaster that struck the Cleveland Indians.

Nothing, you see, is proof against potential upset, and a safety congress, with its underlining of life's uncertainties, brings that lesson forcibly to our minds. It is a provocative and stimulating experience.

In our company, safety in operations has always

been a matter of critical importance. I suppose it might be said that a company which was, in the beginning, exclusively a producer of explosives starts with a rather obvious awareness of its problem; perhaps that is one reason why today an employee of ours who makes dynamite is far safer at work than he is at home taking a bath. He has trouble identifying the bathtub as a lethal instrument, whereas his respect for nitroglycerine is instantaneous and permanent. Nonetheless, the company has been carrying on a continuous safety drive for 152 years, based on the conviction that no consideration, however major, can be permitted to outweigh personal injuries, however minor.

I suppose that methods of assuring safe operation would be relatively simple if the Du Pont Company had, as we once had, no more than a few dozen employees, all operating at one location. With nearly 100,000 employees distributed among 100 locations, the problems are much more complex, just as the importance of the program is multiplied many times. I spend many hours studying the record of safety performance at our various plants. I am glad to say that none of the records are poor ones, but some are better than others and the differences that show up are fairly substantial.

I have often tried to find some factor which would explain the observed differences and establish a method, however approximate, of correlating them. I have compared the hazard of the various operations. I have looked at geographical differences and at the average age of the employees. I have compared the size of the working force at our several plants. Thus far, there is nothing to say that inherent process hazards produce more accidents.

There is no evidence to support a conclusion that small plants can be operated more safely than large ones or vice versa. There is nothing to geography, nothing to employee age, race or creed.

We have, for example, one installation with only a few employees where there has been no lost-time injury in 25 years. We have, on the other hand, some large plants where the record, based on manhour exposure, is even more remarkable—equivalent to one man working steadily, without accident, since about 12,000 B.C.—a dramatic if somewhat exhausting concept.

The more we study the problem the more we see that success in safety is the product of an environment which emphasizes individual responsibility—exercised at all times and at all levels. The feeling for safety must permeate the organization from top to bottom, for no one man, no one group, however dedicated, can assure a good overall performance. Cooperation, mutual recognition of necessity, mutual respect, mutual confidence—these are the components of a successful safety program. They are the components of a successful program of any kind.

Individual responsibility is an old and well-established principle. It is interesting that the realistic officials in France in the eighteenth century recognized this fact and even enacted it into law. That law required that workers and management at all government explosives works should have their homes and rear their families on the immediate premises. In so doing, the authorities assured themselves that the incentive to work safely was present at all times, with every man his brother's keeper if he were to be his own.

The founder of our company, who learned his trade in the French explosive arsenals, took this principle to heart. When he started his powder mills in 1802, he built his own house a few hundred yards from the mill. It is perhaps worth noting that he lived out his years in that home, and that today it is still standing, in good repair.

Personal responsibility, organized and directed in proper channels, can accomplish astonishing things. Whatever success in safety the Du Pont Company has had has been due to this quality above all others; that safety has become the individual responsibility of everyone—not only that of the company, not only that of management, not only that of the foremen and supervisors, but of the entire working force.

So it is with safety, and so it is with most other aspects of human behavior. Individual responsibility is basic to all functions requiring cooperation among men and women, and we have never found an acceptable substitute. Human motivations are not subject to technological improvement, which is simply another way of saying that human nature changes little as the years pass. Success in any area is born of individual effort.

If we can learn anything from our safety program, it is that no matter how complex and technical our society has become, people are still people, and people can be relied upon to react as individuals always have reacted. This is a truth that I think we lose sight of in our preoccupation with the material, rather than the emotional side of man.

The Era of Small Business

In the early days of industrial enterprise, we can assume, I think, that the role of the individual was quite clear and quite obvious. A hundred years ago, something like four out of every five persons were self-employed, the exact opposite of today's situation in which four out of five are employees of someone else.

In the 1850's, even the one in five who was an employee was very probably one of a small group working under the direct eye of the proprietor.

—To page 83





Crisis of Opportunity

(Fiction)

By BILL ANDREWS

December 3, 1954

THE ELEVEN-MONTH figures are on my desk, and they look very good indeed.

Not a disabling injury since August — three clean, spotless months. A 1954 frequency rate that is a record low for the company. A severity rate that is less than half the best previous 11 months.

I should be very happy, and so should my assistant, Harry Dexter. But as I look across the statistical tables and charts on my desk, I see Harry at his desk looking at duplicates of this material, and I see mirrored in his face the bitter anxiety that can come with a measure of success.

Oh, of course, it tastes good. It tastes very good indeed. It is like being in the finals of the tournament, with a record of many preliminary matches won. But it is also like being in the final match, and knowing that in the finals a man can lose.

Twenty-eight days can badly dent that frequency record and can smash the severity record.

So in my mind, and in Harry's, too, I think, is the dream of a full year's record that will mean praise, raises, and a handsome plaque—if...

Strangely, a man's perspective changes in the face of opportunity. I have not lied at other times when I have hammered on the theme of the moral responsibility to give one's self completely to the work of preventing pain and death. I have not lied at many conferences at which I spoke of the dollars and cents value of stopping accidents.

But today, the mind hangs on self-interest, on statistical abstractions of dates and times and numbers. From the moral and the dollar point of view, it means no more to stop an accident in December 1954 than, say, in February 1949 or January 1955. Yet I would be lying to myself if I said it did not mean more to me to keep December clean. For in the patterns of praise, raise and plaque, the contest and the calendar, I am caught and driven by a system of incentives which I know to be somewhat artificial.

Take the contests—the plaque I might win will soon be a forgotten addition to the decorations on my office wall. The joy I may receive from the announcement of our victory will soon fade away. I know, as well as any man, for I have served on committees that planned such contests—their purpose is to stimulate activity, encourage statistical reporting. The fruit of the contest is not an award or praise, but the prevention of accidents, this month and next.

It is not a bad thing, I suppose, for the system of incentives is designed to do just what it is doing to me, and I will be a better safety man this month because of the contest and the dreams of plaque and praise.

I stand on the doorstep of my greatest professional victory deeply in the debt of a great many men.

It may help me this month to remember them and their contributions to my knowledge and skill and spirit.

The old boss at Monarch—who took the green kid from engineering school and drilled him in the harsh and endless process of

prowling the plant and searching for trouble. The old boss who hammered on the need for being out on the shop floor, among the men, among the supervisors, among the hazards with an eye to see and the will to teach and preach and fight for safety.

And Max, the equipment salesman, the good peddler, with the good peddler's eye for opportunities for sales based on the spotting of real needs and a deep knowledge of both the strength and weaknesses of safety equipment of all kinds. Max, too, is the good inspector, and a bit of a philosopher, and the combination of all his qualities has added much to the seeing power of my eyes and the knowledge piled up in my head and the drawers of my vertical file.

I had an assistant once, Mason, right here in Jackson-Barnes. He taught me a kind of guts, taught me the hard and bitter way by walking out on me and taking another job right after I had failed him, the work, and the company by playing soft and goeasy politics at a budget session in which I should have fought.

Sue—what can a man say about the girl he marries, except that by marrying her he confessed his deep need for qualities in her to supplement his lacks? I remember many evenings and a few dawns when I came home with the blood of failure on my shirt and, over coffee at the kitchen table, I took the comfort and strength she had to give in my time of need.

Jackson himself, the old tyrant, now only a seldom seen ghost hobbling into the plant two or three times a year, but still demanding, still unyielding, still threatening—bitter and unkind often, yet a harsh battler for what is right and good. I have left him often in anger, but I always left him with the resolve to do a better job.

And there's a man on the National Safety Council staff, my section representative, who, quietly, has worked these last eight years with me and many others to supply needs, to offer advice,

to listen when we bragged and griped and dreamed. Mark is a factor hard to define, hard to associate with this or that particular quality or skill. But he is a part of the whole, and I would be a poorer safety man if I had not had him for an ally.

There are, of course, many others, colleagues, working stiffs, straw bosses, superintendents, assistants, staff men, who have added something to a storehouse of fact and idea and will that makes this opportunity possible.

But in a sense they are all useless to me now. Their knowledge and help could transform a green kid into a man, an ignoramus into a professional safety engineer. They could supply what would let me run a good safety program where only a bad one had existed.

But having done so much, so very much, they have done all an outsider could do. From here on, it rests on me. They are not pattern plans, no gadgets, no clever ideas or solid principles which, of themselves, break any safety records.

These form the foundation, but it is the man on the spot who must use them badly or excellently, make the decisions, and pray for the miracles.

The miracle I need is a perfect December. All that I can do to bring it about is to shade the odds a bit in my favor.

Some things we've prepared, knowing that we might have this opportunity. We will have more safety training classes this month than ever before. In November we added 25 per cent to our corps of trained first-aiders, and the safety emphasis in that first aid training was very strong. Two departmental hazard surveys are underway, conducted by a specially selected group of safety committee members. Equipment is in decent shape, and housekeeping has been improving steadily.

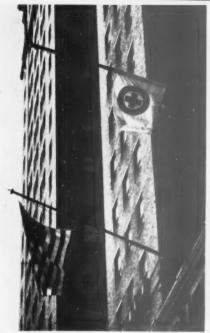
These are helps, but they are not magic charms, and both Harry and I know it. He has finished looking over the data, and now he expects of me the decision

High heels on a date re Okay, says Elaine. But here on the Job hey give me a pain!

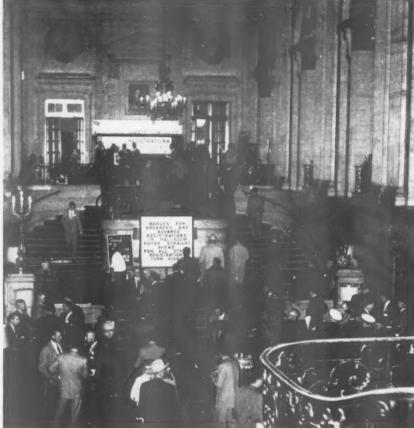
for action—the decision of how to use our resources for the last push.

I play with the idea of a big

—To page 91



The Stars and Stripes and the Green Cross for Safety banner marked the headquarters of the 42nd National Safety Congress at the Conrad Hilton.



The lobby and grand stairway of the Hilton come to life as delegates head for the Early Morning Sessions.

Sammy Safety Says

"It Was a Great Congress"



THE 13,000 persons who thronged the meeting rooms of five Chicago hotels and the vast and colorful Exposition at the Conrad Hilton during the week of October 18-22 will agree with Sammy—the cheerful little fellow who made his bow at the Congress and already is beginning to enliven safety displays throughout the country.

From the standpoint of attendance it ranked among the larger conventions of 1954. For the number of meetings held in one week and number of program participants, it is unique. More

than 200 sessions were held during the week, with more than 800 persons taking part as chairmen, speakers or panel members. And the scope of the program and its objectives in terms of individual and national welfare make the National Safety Congress an institution of much significance.

The 1954 Congress lacked some of the headline features of last year's meeting, such as the presentation of the Federal Charter to the National Safety Council and the fortieth anniversary of the founding of the Council. But throughout the week the various

sessions presented subjects of interest to those in all fields of safety endeavor — occupational, traffic, farm and home. There were meetings planned for today's needs, as well as new experiences in solving the perennial problems.

With the thoughtful addresses by Mrs. Jean Wade Rindlaub, vice-president of Batten, Barton, Durstine and Osborn, Dr. Henry T. Heald, chancellor of New York University, and Council President Ned H. Dearborn at the Annual Meeting to reinterpret the safety movement, the Congress was off to an auspicious start.

And there was much to consider and remember in the Banquet address by Crawford H. Greenewalt, president of E. I. du Pont de Nemours & Co.

Concern for the individual—the core of the American experiment in freedom—is something we must never discard, Mr. Greenewalt reminded the Banquet audience. While demands of mass production have made the shift to group effort inevitable, and as science advances we will become even more dependent on

large organizations. "But," he added, "No matter how well organized or how technically sophisticated we become, the fact is that progress originates in creative thought — a purely personal attribute."

Automation, an industrial development which promises to be of far-reaching importance in industrial operation, appeared on a Congress program for the first time. Its potential effect on accident prevention was presented before the Metals Section by John B. Sterling of Ford Motor Company.

"A New Look at Nuclear Developments" was presented on one of the many subject sessions

The Annual Meeting is called to order in the Grand Ballroom of the Conrad Hilton by President Dearborn.



Below: As usual, the Early Morning Sessions packed the Grand Ballroom, Tuesday through Friday. The speaker: Edward McFaul, Chicago: The topic, "Let's Get Personal!"



sponsored by the American Society of Safety Engineers, with papers and discussions on the effect of atomic weapons, safety and fire protection problems of the H-bomb, and safety planning for atomic test operations.

Handling materials by hand and by the many types of mechanical equipment was thoroughly covered in three subject sessions.

Among the current safety problems, few have been receiving so much attention as noise. In addition to the subject session, the Aeronautical Industries Section and the Occupational Nursing Section each devoted an entire meeting to the topic. The Wood Products Section program also in-—To page 26



Removing grease from the hands is a common misuse of toxic solvents. Both inhalation of vapors and defatting action on the skins are among the hazards.

When You Use

Organic Solvents

Get acquainted with all values affecting flammability and explosion possibilities, also toxicity hazards—as they actually exist on the job

By HOWARD M. GADBERRY

STEPS that minimize the danger of fire, explosion and solvent vapor intoxication can be stated very briefly:

Find out the properties of the solvents; know what type of hazard is created; be realistic about the risks. The workman who knows the hazards is not likely to be injured.

The flash point of organic solvents is a generally accepted guide to the selection of safe materials. Despite its wide acceptance we find that the concept of flash point is poorly understood.

The flash point of a solvent is the temperature at which enough vapor will accumulate in the air above the liquid to flash into momentary combustion when a source of ignition is applied. Below this temperature, even in the presence of a flame, solvent vapors mixed with air will not burn.

There is another way of looking at the figure of flash point. All flammable vapors have their explosive limits in air. For petroleum vapors this range is usually from about 1 per cent to 6 per cent by volume; alcohols and other oxygen containing solvents have ranges that are higher, say 4 per cent to 15 per cent. It is the lower explosive limit that determines the flash point.

When the temperature of the solvent reaches the point at which its vapor pressure is about 7.5 mm. or 1/100 atm., the air above it will contain the necessary 1 per cent or so of solvent and the vapor will burn when a flame is applied.

This temperature we call the flash point. Flash points of some hazardous solvents are shown in Table I.

In practical terms these flash points indicate that wherever solvents are to be used "in the open" the solvent should have a flash point above the maximum workroom temperature. Also, flammable solvents should never be used on hot parts or warm machinery.

In a complex mixture such as most petroleum solvents and naphthas, the lowest boiling fraction or component present in the mixture determines the flash point. For this reason, the flash point of practically any petroleum hydrocarbon solvent can be calculated from the empirical relationship shown in the following equation. This relationship which we have developed has been found useful for finding the approximate flash point of solvents when only the ASTM distillation data are given.

Flash Point, °F. = 0.68 I.B.P. - 106 (From plot of Flash vs. I.B.P. on 300 commercial naphthas)

	TABLE I				
FI	ash Point Deg. F	Ignition Tem Deg. F			
Ethyl ether	-49	379			
Gasoline	- 47	536			
Carbon					
disulfide	-22	248			
Hexane	-15	478			
Methyl					
formate	- 2	456			
Acetone	0	1042			
Cyclohexane	1	565			
Benzene	12	1076			
Heptane	25	451			
Benzaldehyde	e 148	377			

HOWARD M. GADBERRY is associated with Midwest Research Institute, Kansas City, Mo.

Aside from the flash point there is another valuable measure of flammability of solvents that is frequently overlooked. This is the minimum ignition temperature. Table I shows both the flash and ignition temperatures. These ignition temperatures are particularly valuable in designing solvent recovery systems, drying ovens and other special equipment where there is reason to believe the vapor concentration will be above the explosive limit. Note the very low values for the ignition of ether and carbon disulfide.

These solvent vapors often ignite from contact with electric light bulbs or steam lines. In drying solvents in ovens it is not only necessary to keep the equipment free from electric sparks and sources of flame, but to keep the heating elements proper well below the ignition temperature of the solvent vapor. Ordinary laboratory ovens with nichrome coils explode fairly regularly when solvent wet soxhlet thimbles are being dried.

A special drying oven designed and built in our laboratories for the drying of plastic films cast from benzene solvent avoids this hazard. The oven is used inside a fume hood and the heating elements are so arranged that the surface temperature never exceeds 400°F. Forced positive draft circulation of air is provided and a magnetic catch allows the door to blow open in case these precautions should fail. The oven has been used for a number of years for drying alcohol, benzene. acetone and similar solvents. It is definitely not safe for use with ether or carbon disulfide and its use is not recommended with hexane or Skelly B.

In our experience, the two greatest fire hazards in the use of solvents around the laboratory have been:

1. Storage of solvents such as ether, carbon disulfide, gasoline or hexane in closed places, such as solvent sheds or laboratory refrigerators. If the containers leak, an explosive vapor is nearly certain to form since the ambient temperature is always well above the flash point. After suffering several explosions, we have taken the precaution of moving the refrigerator controls to the outside of the boxes.

Heating, boiling, evaporating and drying of solvents without providing proper ventilation and insuring the absence of sparks and flames.

TABLE II Physiological Action

Asphyxiants — Inhibit oxidation
Irritants — Corrosive or vesicant
Narcotics — Anesthetics
Poisons — Tissue damage

Blood poisons Nerve poisons Liver and kidney poisons

Toxic Hazards

The fire hazards of volatile solvents are so well known that toxicity of many materials has been overlooked. Recently I read a safety publication dealing with the safe handling of gasoline which recommended in good faith that "wherever possible, carbon tetrachloride should be substituted for gasoline" since carbon tetrachloride is completely nonflammable. This sort of almost criminal misunderstanding is due to the complexity of factors affecting solvent vapor toxicity. Too much simplification and generalization often lead to error.

All volatile solvents are toxic, to be sure, but it is most important not to lump them together, like the little boy who was offered broccoli and replied, "I say it's spinach and to hell with it." The toxic hazards of any operation should be carefully evaluated on its own merits.

Solvents differ in their action on the body. The action may be chemical or physical, reversible or permanent, general, local, systemic or specific. If a chemical agent causes death or injury, it may or may not be a true poison. Table number II summarizes the effect of various agents.

Asphyxiants deprive tissues of oxygen. They are not, properly speaking, poisons. Even carbon monoxide only acts to prevent oxygen from reaching the cells. Death from monoxide cannot be considered poisoning any more than drowning is.

Irritants inflame mucous surfaces. Sulfur dioxide or phosgene may cause respiratory seizure or fill the lungs with body fluids, but the effect is not specific chemical tissue damage. An acid burn, for example, could not be considered

—To page 68

Cleaning metal parts in this manner also presents the risks of inhalation and skin absorption.

(Wearing rings around machinery isn't recommended either).



At the Congress

-From page 23



Harvey G. Hensel (center), former safety director for Youngstown Sheet & Tube, Chicago district, now living in California, drops in at the Congress. With him are Howard Holland, Y S & T, East Chicago (left), and Steve Simpson, Caterpillar Tractor Company.

Where old friends meet—at the registration desk.

cluded a paper on the industry's noise problems.

Effective communications between management and employees, a subject which has been receiving increasing attention from personnel directors and industrial editors, occupied the programs of three ASSE subject sessions. MeRight: Library Service on the Hilton's lower lobby had the answers to a variety of problems. In center is Ruth Parks, NSC librarian; right: Lois Zearing, assistant librarian.

Lower right: one section of the Council's exhibit.





Wesley I. Nunn, advertising manager, Standard Oil Co. (Ind.), and coordinator of The Advertising Council's "Stop Accidents" Campaign, takes a bow at the Banquet. At right: George C. Stewart who became general manager, National Safety Council, November I.



dia discussed included company publications, visual aids, company rule books, safety meetings, and personal efforts of supervisors.

The growing use of volatile organic solvents in industry and the health and fire hazards involved occupied the program of another session.

The Federal Government again participated actively in the Congress. The Ninth Annual Federal Safety Conference, sponsored by the Federal Safety Council, held two sessions. Conferences were also held by the Air Force, Army and Navy. Government representatives also took part in many other Congress sessions.

Many industrial concerns with widely scattered operations send large delegations to the Congress each year and hold their own safety conferences during Congress week. One of the larger groups holding meetings during the week comprised the public utility companies served by Ebasco Services, Inc.

Between Monday morning and Friday noon 159 scheduled meetings were held in the Conrad Hil-

In addition to the sessions of the Federal Safety Council in which various government egencies took part, meetings were held by the Army, Air Force and Navy. Here, Col. Leonard Carter of the Air Materiel Command is explaining details of the AMC exhibit.

SAC Cited for Third Straight Year



FOR THE THIRD STRAIGHT YEAR the Strategic Air Command has won the National Safety Council's Award of Honor—the first such achievement by any major air command. Its ground safety record, particularly in reducing traffic accidents, has won widespread recognition. Above: General Curtis E. LeMay, SAC Commander (left), accepts the award from Col. Will L. Tubbs (USAF Ret.), USAF Ground Safety chief. Major General F. H. Griswold (right), SAC's vice-commander, and Colonel Stephen D. McElroy (second from right), SAC director of personnel, were present for the ceremony which took place at Strategic Air Command Headquarters, Offutt Air Base, Omaha, Neb.



ton, Congress, Blackstone, La Salle, Morrison and Palmer House Hotels. National and sectional committee meetings, and conferences of various groups not listed in the printed program brought the total number of meetings to over 200.

For many delegates the Congress day began with a group session at breakfast followed by attendance at the Early Morning Sessions Tuesday through Friday for which latecomers are out of luck for seats. Title for this year's series was "Let's Get Personal," with Edward McFaul, "serious humorist," as the lecturer. Various phases of mental health and personnel relations and their influence on accidents were discussed in the series.

Protection + Correction

By HERMAN SAGER, O.D.

Savings from a complete program of eye conservation are no longer theoretical. Here are the methods and results at Sperry Gyroscope Company over a period of ten years such a program. Following are the facts and results:

Over a ten-year period \$400,000 has been expended for the inception and maintenance of this inplant program, or an average of \$40,000 a year.

A breakdown of this expenditure includes the following:

 Salaries for professional and technical services\$180,000

Instrumentation and other miscellaneous expenses 30,000

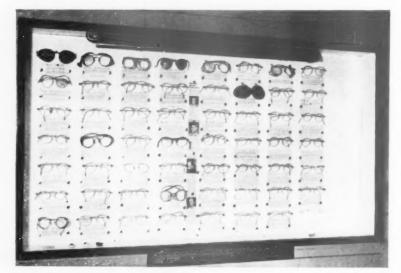
\$400,000

The plant population has varied in the past ten years from 11,000 in 1944 to a low of 7,000 from 1946-1948, reaching a peak of 18,000 in 1953.

In return for this expenditure the Sperry Gyroscope Company has enjoyed the following:

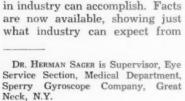
1. Not one eye has been lost in our machining area or foundry in ten years, since the inception of the eye program. Not one eye has been seriously injured resulting in even partial loss of sight.

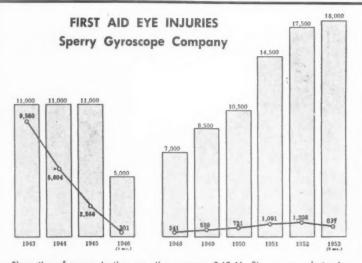
Eighty-two pairs of smashed safety glasses attest to the poten-



Salesmen for eye protection. A few of the eye savers on display at the Sperry plant.

A VISION program can save money by curtailing eye losses, injuries, and lost time. Factual data and results that have been accumulated over a tenyear period by the Eye Protective-Corrective Program of the Sperry Gyroscope Company prove this. It is no longer necessary to theorize as to what an eye program in industry can accomplish. Facts are now available, showing just what industry can expect from





*Inception of eye protective-corrective program, 3-15-44. Six eyes were lost prior to introduction of program—none since.

tial eye sight loss during this same period. Each pair of smashed safety glasses displayed on bulletin boards throughout the plant was considered by a committee (consisting of the medical director, safety engineer, and eye service supervisor) as having saved one or both eyes from blindness as a result of the accident.

The direct compensation award in New York State for the loss of an eye is \$5,120, which would have resulted in a minimum payment of awards totalling \$419,840. This savings alone of only one phase of our eye program is sufficient to cover the ten-year cost of our eye program.

Although such payments are not directly charged to the company, our current insurance rates are based on past accident experiences. An increase in accidents and subsequent compensation awards will eventually reflect in cost to the company through increased insurance premiums.

Let us take a case in point: Patrick McCoy was struck in right eye. The accident resulted in 100 per cent loss of use of right eye in addition to facial disfigurement. An award was made of \$5,120 plus \$500 for facial disfigurement. This figure does not include medical bills of physician and hospital, nor the indirect costs



No room for doubt here—these goggles prevented total blindness.

ACCIDENTAL?

WHERE do they get off calling it an accident when most people get hurt? Looks to me like someone doesn't know what an accident is.

Reminds me of the time Joe cracked up his new convertible. Papers said, "the car went out of control on a curve."

Joe didn't lose control of the car—he never had it! I happen to know Joe was half asleep at the time, yet they called it an accident. The only accident was that he wasn't killed. Me too, because I was with him.

Then there was the day my next-door neighbor fell off his 20-foot extension ladder. He had one foot of it on the ground and the other foot on the concrete sidewalk. He reached out to the side a little too far to paint a shutter, and blooie! Right in the middle of his evergreens.

They called it an accident too, but it looks to me like the only accidental part of it was that he didn't break his neck as well as his arm.

One day on the job Milt had to do a little repair work on a compressor. As usual, he had his rear pockets jammed with tools, including a 12-inch screwdriver. As he was crossing the storage yard he tripped over a piece of 2-inch pipe and fell, ramming the tip of the screwdriver about an inch into his back.

Yep, they called it an accident. But, I still say it was merely accidental he didn't get a permanent case of sclerosis of the liver, 'er something.

Looks to me like somebody is way out in left field when they call such things accidents. I thought an accident was a chance happening, unexpected, unintentional and without known or assignable cause. Didn't all these things have causes? Couldn't they have been expected? But, who am I to speak up against all these experts on the subject.

Seems to me if they would quit calling such things accidents, maybe guys like me would think more about not having them.

Just like old man Murphy, who blew himself up using some flammable solvents in the basement near his gas heater.

Man, what an accident it would have been if he hadn't been killed!

ROBERT D. GIDEL, Senior Engineer, Industrial Department, National Safety Council

such as time lost by the employee, his foreman, time lost by other employees at time of the accident, loss of wages, etc. It is generally recognized in industry and has been demonstrated statistically by H. W. Heinrich of the Travelers Insurance Company that for every dollar of direct cost there are at least four of indirect cost. This 4 to 1 ratio was established after analyzing 75,000 cases.

As previously mentioned, the saving in compensation awards, incidental to the 82 eyes saved, approximated \$420,000. Multiplied by four, this could have resulted in a total direct and indirect expense of \$1,680,000 had eighty-two eye losses been sustained.

Aside from the economic justification of saving sight there is also the humane aspect of conserving vision and preventing human suffering of the individual involved. For this there is no monetary evaluation.

The 82 eyes saved are based only on those accidents which

-To page 88

An Appeal to the Nation

December 15 will be S-D (Safe Driving) Day. The President's Action Committee on Traffic Safety urges the nation to keep it free from highway accidents

EVERYBODY in America is going to get a chance to give off-the-job safety a boost on Wednesday, December 15, when every major traffic safety organization in the country will join with the President's Action Committee for Traffic Safety in a concerted effort to accomplish a minor miracle—go through the 24-hour period free of accidents.

The National Safety Council, through its member councils and chapters, will fully cooperate in the S-D (Safe Driving) Day program. Material on unifying community action is now being distributed

throughout the country.

The purpose of S-D Day is to show that motorists and pedestrians can eliminate traffic accidents by their own actions. By asking everyone in every State and community to join in a 24-hour demonstration, dramatic results can be achieved.

S-D Day will demonstrate that the place to attack the traffic safety problem is in the *community*, and that the responsibility rests upon each individual. It will implant in the minds of motorists and pedestrians the realization that, if they can greatly reduce accidents on S-D Day, they can do so throughout the year.

The preparatory period of 30 days of intensive education, through all channels of communication, will serve to alert the public to S-D Day, to direct attention to the urgency of the traffic safety problem, and to emphasize the importance of support by every individual for proven programs.

This intensive public education program, combined with the mass pooling of effort by so many organizations in all parts of the country, will give great stimulus to existing safety programs, and thus foster year-around attention to safe driving and safe walking.

The Challenge

The traffic accident problem is a national one, a community one, and one that concerns each individual.

Last year, we Americans killed one person on the average every 14½ minutes, around the clock and throughout the year. The total 1953 death toll—38,300.

In 1953, there was an injury in traffic approximately every 24 seconds. A total of 1,350,000 persons were injured to the point where they were disabled beyond the day of the accident. For every fatality, one or more persons was totally and permanently disabled, thereby becoming a financial burden, to his family, to the community, or both.

The price of traffic accidents in 1953 in terms of money is estimated to have been \$4 billion, including medical expenses, property loss and other costs.

President Eisenhower has requested Governor Dan Thornton of Colorado, as representative of public officials on the President's Action Committee for Traffic Safety, to "enlist the support of all the Governors" for "S-D Day."

Each Governor has been asked to take these actions:

 Designate a State S-D Day director to head up the program on a State-wide basis.

Call upon all Mayors and county officials to enlist in the program, asking each to designate a local S-D Day director.

Issue an official proclamation on November 15, designating December 15 as "S-D Day," and calling on all organizations to develop definite activity to effectuate the program.

With the cooperation of participating national groups, publicity material and ideas for activities in support of S-D Day will be made available by the President's Action Committee to State S-D Day directors for transmission to and adaptation by local directors.

While States, counties, communities and participating organizations will have ample opportunity to adapt the program to their own needs or special requirements, a pattern for the conduct of the event will be available, and its basic components will serve as a guide for local campaigns. These fundamental elements, blueprinted in a "How to Do It" guide, will be available through State, county and local S-D Day directors.

Local groups will work through local S-D Day directors, and Statewide activities will center in the State S-D Day directors. Activities of the President's Action Committee for Traffic Safety will be concentrated upon coordinating the program nationally, and working with State directors and national organizations.

Motorists and pedestrians will be urged on S-D Day to accept full personal responsibility for complete adherence to these basic safety principles:

- Observe the letter and the spirit of all traffic regulations.
- Be courteous to every driver and pedestrian—practice sportsmanship.

3. Give full attention to driving and walking.

In short: Drive and walk as they would have everyone else drive and walk.

A score sheet will be kept in cooperation with public officials, press associations and newspapers so that the results of the Nation-wide S-D Day effort can be measured.



Four safety engineers (identified by cards) were guests of WBBM-TV's "Choose Your Career" show, to answer questions from Chicago high school students. This is believed to be the first TV discussion of safety engineering as a profession. Mel Galliart (standing) was m.c.

In Print and on the Air

THE 42nd National Safety Congress, largest in history, hit a new high in press, magazine, radio and television coverage.

One hundred and fifty-five salutes to the Congress were beamed coast to coast on network shows, while 1,092 were carried by local stations.

The three major press associations each moved more than 1,000 words each day. Chicago newspapers alone ran 66 items for a total of 883 column inches. Trade journals, house organs and consumer magazines were generous in the space given the world's largest safety convention.

A panel discussion on safety, with Reid Forsee, of the Canadian Broadcasting Corporation, Toronto; W. Earl Hall, editor, Mason City (Iowa) Globe-Gazette; and Paul Jones, director of Public Information, National Safety Council, was broadcast throughout Canada over CBC.

Crawford H. Greenewalt, president, E. I. du Pont de Nemours & Company, Inc., spoke before an overflow crowd at the annual

Congress banquet. His address was broadcast over a national hook-up on the CBS radio network. This was the outstanding single program of 60 broadcasts which originated at the Congress.

Interest and cooperation extended by the public information media played an important part in the success of the 1954 National Safety Congress.





W. Earl Hall, editor, Mason City (Iowa) Globe-Gazette, is interviewed by m.c. Don McNeill, on ABC's "Breakfast Club." Hall is winner of \$10,000 Criss Award for 1954.

Safety was news around Congress time. Margaret Williams looks over the collection of news and feature stories about the 42nd Congress, on display at NSC press room.

Protective Barriers for Super-Voltage X-Ray

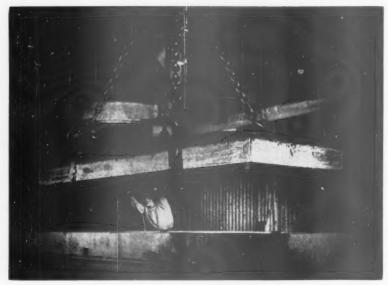


Figure 1. A cast slab of lead, first step in the fabrication of sheet lead used in a sliding door which protects from radiation personnel of the Deep Therapy room in the Tumor Institute of the Swedish Hospital, Seattle, where a 2-million volt Van de Graaff X-ray generator is installed.

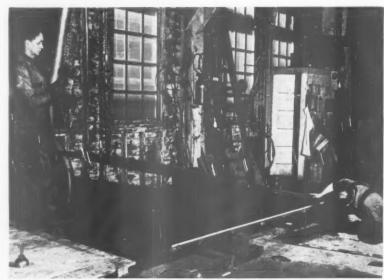
Figure 2. A step in the construction of the lead door. Fabrication started with a piece of one-inch mild steel plate. To one side of this was added a slab of $\frac{3}{4}$ in, thick lead and on top of that a $\frac{3}{16}$ in, steel plate. After welding was finished on this side, the door was turned over and the process repeated. Total weight of door is 9,000 pounds.

RECENT developments in non-destructive X-ray inspection, industrial as well as medical, indicate the increasing use of units with super-voltages, the 2-million volt range. Whether used to detect flaws, holes or scale that may form in metal processing, or for cancer therapy, radiography brings with it the necessity of developing better protection for personnel, particularly from stray radiation.

Both concrete and lead have been used as protective barriers. The latter, which is the densest of common materials (in the range Washington. Here, a 2-million volt Van de Graaff X-ray generator, capable of penetrating steel as thick as 12 inches, was installed.

The walls and ceiling of the X-ray room located in the basement of the hospital, were constructed of concrete, up to four feet thick in places. The wall to the back of the machine is one foot concrete. The wall to the left of the machine is 2 feet. The wall to the right of the machine where the entrance is placed, is 1½ feet, while the wall opposite the projector end of the equipment is 4 feet thick. The ceiling is 1 foot concrete. Dimensions of the room itself are 17 x 22 feet.

The entrance to the room is a



of 700 lb. per cu. ft., depending on whether it is cast, rolled, etc.) has taken the form of bricks and cast slabs, and has even appeared in leaded glass.

Typical of the structure required to house super-voltage X-ray machines is the deep therapy room of the Swedish Hospital's Tumor Institute in Seattle,

4 x 7 foot opening in the concrete. To guard against the escape of stray radiation, a unique lead door measuring 6 x 9 feet to cover the opening was designed.

The fabrication of the door started with a piece of 1 inch mild steel plate. To one side of this was added a slab of ¾ inch thick lead, and on top of that a

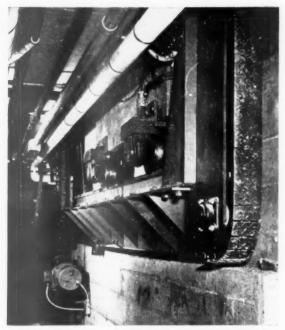


Figure 3. Door drops below floor level to make radiation seal of room complete. It slides on a railroad rail which has standard ball bearing pillow blocks. Door is motor driven at a speed of 4 feet in 20 seconds. A sliding threshold made up of steel plates resembling a tractor tread automatically closes the gap in the floor as the door opens.



Figure 4. View of lead-steel "sandwich" door covering entrance to Deep Therapy room. Door measures 6 x 9 feet, opening 4 x 7 feet. In the leading edge of the door is an ingenious safety device which prevents anyone being caught during closing. In case of power failure, the door can be positioned by means of a handwheel.

 $_{16}^{3}$ inch steel plate. After all welding was finished on this side of the door, it was turned over and another full-sized slab of $\frac{3}{4}$ inch lead was put on. To this was added another $_{16}^{3}$ inch steel plate.

Total thickness of the door is 2% inches. Total weight is about 9000 pounds.

Due to the extreme weight of the door, it was designed to slide on a 90 lb. railroad rail which has standard ball bearing pillow blocks. A 3/4 hp motor is used to move the 41/2 ton mass, and it does this at a speed of 4 feet in 20 seconds. The door has on-off

—To page 88

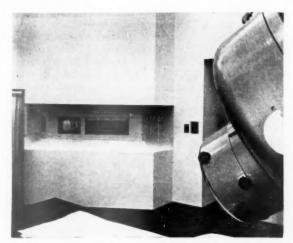


Figure 5. Control room has leaded glass windows framed with lead bricks. Glass is 75 per cent metallic lead by weight, stops radiation about half as effectively as lead itself but nevertheless has sufficiently high refractive index to allow wide angle viewing and a high degree of clarity which permits photographs to be taken from the outside.

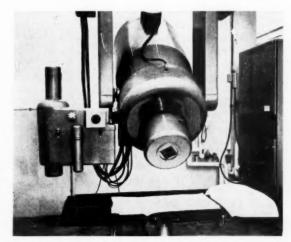


Figure 6. Lead is also used in head of X-ray machine. In the focusing area, a series of lead bricks operate similarly to the shutter of a camera. Weight of bricks is 1700-1800 pounds but turning or focusing is almost effortless due to fingertip control. Machine is made by Hi-Voltage Engineering Corp., Cambridge, Mass.



The increasing cost of small injuries adds to the businessbreaking losses of serious injuries, according to Robert Porter, supervising engineer, Industrial Safety and Claims Company, Chicago. He compared the experience of two 50-employee firms with average rates; after two years of uncontrolled losses one firm was paying twice as much for insurance.



One of the charts used by A. M. Baltzer to explain why small firms should take time for safety, how they could do it, and sources of safety help.

Illinois Program Reaches Small Business

By A. M. BALTZER

Neighborhood meetings draw attendance from small independent companies that have had little previous contact with safety organizations

CHICAGO, like most cities with established safety conferences, finds it difficult to attract small employers to local meetings. Small business sessions usually draw fairly well but an analysis of the audience reveals that only a handful of small, independent companies participate. Consequently, the thousands of employers with little or no contact with safety organizations are never reached; it is no surprise that few of them make any attempt to control work injuries.

Committees planning local safety conferences appreciate the difficulty in arranging programs that will appeal to both the company with a safety program and the company that has not done much about accident prevention. They naturally catered to the established interest of the larger companies and, so, most sessions were more technical than promotional. More important, no great effort was expended to attract small employers to even those few sessions which could be called promotional. The Illinois Occupational Safety Program corrected that situation. It reached the right audience with the right show!

How We Got Started

Almost a year ago the Illinois Manufacturers' Association invited representatives from the mutual and stock insurance companies, the Chicago Chapter ASSE, the Greater Chicago Safety Council and the National Safe-

ty Council to co-sponsor a neighborhood safety conference of small employers. This group developed into the Illinois Occupational Safety Committee which quickly agreed to sponsor not one but three conferences in outlying industrial districts of Chicago. The genuine enthusiasm of more than a dozen key representatives from the sponsoring groups pointed up the urgency of the situation. It was proof that association and insurance executives, safety engineers and others were more than willing to pitch in and work if a realistic program could be outlined.

The approach was carefully planned and a time-table laid out for the following steps:

1. Secure the cooperation of all casualty insurance companies in the area;

A. M. BALTZER is Director, Small Business Program, National Safety Council.

bring in insurance agents' associations, employers associations and other business groups. Get their help at the planning stage.

Publicize the overall program and use the promotional facilities of each sponsor to the best advantage.

3. Hold neighborhood safety conferences when and where small employers could conveniently attend.

Follow-up with one day "how to do it" safety training courses for employers' representatives.

5. Expand the conferences into other neighborhoods and follow-up with more such courses probably sponsored by the Greater Chicago Safety Council.

6. Check results through postcard and personal follow-up.

Advance publicity capitalized on the interest generated by safety legislation in Illinois. It called attention to production losses, increasing labor costs, and the importance of good employee and public relations. A Publicity Subcommittee didn't miss a bet in talking the businessman's language. The following illustrates their activity:

1. Letters keyed to the interest of each prospect were prepared for mailing with program flyers by:

insurance broker's associations to brokers,

 b. from broker to assureds,
 c. from insurance companies direct to small companies.

The Illinois Manufacturers Association printed 20,000 program flyers and sent 5,000, with a transmittal letter, to a selected mailing list of their members.

3. The Greater Chicago Safety Council sent a promotional letter and the program flyer to its membership.

 The National Safety Council sent publicity releases to 127 business papers and neighborhood newspapers.

5. The Trade Association Executive Forum of Chicago sent 300 program flyers to its membership and an announcement was made at the TAEF meeting.

6. Insurance companies distributed thousands of flyers,

Attendance at the kick-off meetings was urged by insurance company safety engineers and, in some cases, special telephone and personal calls were made to selected risks inviting them to attend.

Neighborhood Conferences Click

The evening programs were short and easy to take. The theme of each session was "Safety Is Good Business." In less than two hours the small employers were briefed on current legislation, production savings, credit and debit insurance rates, and the need for voluntary action by top management. Extra interest was added by the distribution of door prizes and the Council's Plus Cost booklet which served as a takehome reminder of the points brought out by the speakers.

At each of the three meetings, a neighborhood businessman explained how safety helped his business. For instance, at the south side meeting M. J. Weber, vice-president of the Continental Scale Company told how his company substituted special trucks for dangerous wooden barrels. This move cut injuries and brought production savings that paid for the cost of the trucks in the first six trips to the foundry!

At the west side meeting L. Carlton Mertz, president of the Carlton Mertz Company explained that at one time his company—with fewer than 50 employees—was unable to obtain compensation insurance because of unfavorable claim experience



How a screw machine products company with 100 employees operated 32 years with only eight disabling injuries was told at the North Side Conference by Jack T. Knuepfer, director of General Engineering Works.



This four-page brochure explained the purpose of the safety training courses, outlined the program and instructions for enrollment.

but that attention to the problem saved the day and enabled them to go 1800 consecutive days without a compensable injury. He pointed out that his unionized plant enjoys good labor relations and that labor turnover was practically eliminated while production was increased.

The attendance at the evening meetings was gratifying—more than 400—of whom half were owners or key supervisors of smaller companies. It is safe to say that this was a greater percentage than any other local conference. The interest and inquiries that followed the courses proved that we were finally reaching a new audience.

Sell Them, Then Help Them

There was nothing startling about the follow-up safety training courses except that they were geared to the needs of owners of small companies or top supervisors in medium size companies who had little or no contact with organized safety. To make it convenient for non-safety personnel to attend, the courses were limited to one day of six 50-minute sessions. Preliminary checking showed that this arrangement would attract better attendance than three evenings of two sessions each. Where distances and

Heard at the Congress

Excerpts from papers at Subject and Sectional Meetings, 42nd National Safety Congress

Problems Mean Opportunities

Why does man reach his peak performance in the arts and sciences in his thirties and not until 55 or 60 in industry, politics and education?

Why are leaders 55 or older? Because they failed to learn while young that high salaries are only paid to those who motivate others. This is the ability to make things happen.

When we're young, we're too cocky. Everything centers around "me," and in the thirties, we are apt to be smug.

It is too bad that most people reach middle life before they learn that to get ahead they must think of others—their hopes, problems, ambitions and desires.

The individuals in their attempt to broaden their viewpoint have become so objective in their thinking, they no longer can make a decision. Objectivity without the ability to make a decision is worthless

Some people feel they cannot get ahead because of laws, rules, regulations and directives. Why worry about these conditions? Accept them as you accept the rules of any game and spend your time trying to win.

There would be no opportunities for you, if conditions were ideal. Problems are your opportunities.

—Jack C. Staehle, Aldens, Inc. (Occupational Health Nursing)

Set A Good Example

Belief in safety works more wonders in preventing accidents than rules or devices.

Good physical conditions in and around the mines, laws, codes and safety rules will accomplish a moderate improvement in preventing injuries. The real improvement comes with training and instilling in each worker a belief in safety. If all men are properly trained in all phases of mining and accident prevention to the point where they believe in safety, they will not use bad judgment.

-George J. Titler, United Mine Workers of America (Coal Mining)

Machinery vs. Hearing

The bat, unlike man, is an animal that gets in trouble if it keeps its mouth shut.

Mother Nature invented sonar long before man used it for submarine detection. A bat can fly unerringly at night because it emits a supersonic sound and hears the reflection when it bounces back from an obstruction—the same principle as sonar. A bat with his mouth taped shut will run into trouble.

No sound in nature can do the damage to the human ear that man-made sounds can.

However, the industrial age of machine shops, foundries, ship-yards, etc. has created the problem of noise deafness. First came gunpowder, then TNT, dynamite, atomic bombs, then H-bombs. The human ear is simply not prepared to cope with stimuli of this magnitude and suddenness.

There are two structural aspects of the ear which make it difficult for complete adjustment to these unnatural sounds. Since muscle contraction is not actually simultaneous with the beginning of the tone, there is no protection for the inner ear for a short span of time. In natural sounds, this lag is seldom serious. But since explosion shock builds up quicker than the ear responds, serious damage can be done.

The continuous noise of a machine shop or a weaving mill poses problems for the two middle ear muscles which they never were intended to solve. The fatigue of the muscle reflex leaves the inner ear unprotected.

—Dr. H. G. Kobrak, University of Chicago (Aeronautical)

Be Practical

What business management needs from safety engineers is cost data on uninsured accidents. Major executives expect the safety department to be able to show with reasonable accuracy how its operations affect profits just the same as may be demanded of other staff activities.

Hard-headed business men are skeptical of generalities and claims put out by safety specialists as to costs of uninsured accidents. Their skepticism is well-founded in most cases, since safety men are often enthusiastic about saving lives but not very business-minded.

Fortunately, when a safety engineer gets away from vague generalities and computes cost data on a sound basis, he will usually find that safety work is not only humanitarian, but also good business and actually profitable.

—Rollin H. Simonds, Michigan State College (Your Accident Data—Cases and Dollars)

Production Wins Wars

The most vital lesson of World War II is that modern war can be lost on the home front as well as on the battlefield.

In all our past wars, the crippling or elimination of our home front production was an almost impossible feat for any enemy. Now, a single flight of enemy planes can carry more destructive power than fell during all the years of World War II.

Despite the fact that no enemy laid a hand on us here at home, it took us 20 months to get going with a full flood of defense production after Pearl Harbor. In this atomic age, it's a certainty we wouldn't get that much time to shift production machinery into high gear.

Another detail worth pondering, is that only 15 per cent of Germany's machine tools were ever destroyed in all those years of the most savage and sustained bombing attacks the world has ever known. It was not the plants and machines which gave out under those assaults; it was the men who ran them.

Germany and Japan lost the war as much through failure of civilian morale as through lack of machines or military manpower. Defeat is conceded by civilians who have lost the spirit and will to win.

That's why the Federal Civil Defense Administration must concern itself before, during and after attack with protection of the people. Industrial leadership, too, must concern itself with Civil Defense not only inside the plant, but outside in the community and elsewhere.

Industry should accept a primary responsibility for protective measures inside plants, and make plans to safeguard personnel and equipment. Industry should organize trained teams to handle casualties in surprise attack, to fight fires and to rescue persons who may be trapped.

Current civil defense planning, including plans for evacuation, does not conflict with prior defense planning. Evacuation merely adds a new concept—a new mobility—in the interest of saving the lives and skills of as many Americans as possible to restore production and carry on the war.

—Val Peterson, Federal Civil Defense (Are You Prepared for Emergencies?)

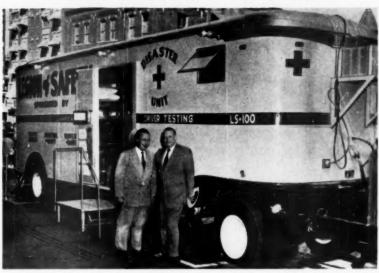
"Tailored" Safety Programs

There's a need for safety programs scaled to the particular needs of smaller industries.

The 103 companies in Pennsylvania which replied to a recent survey employ 13,627 people and had a total loss of \$613,215 or an average loss per company of \$6,000. Twenty per cent of the companies reporting had no medical supervision whatsoever—not even an employee trained in first aid.

To improve the participation of smaller companies in the state's program, subjects dealing with

Mobile Rescue Unit Tours State



Nebraska Motor Carriers Association has inaugurated a state-wide safety campaign with what has been described as the largest and best equipped mobile safety and rescue unit in the U. S.

A Fruehauf trailer powered by an International tractor, the unit contains a complete stock of medical and surgical supplies, is fitted with 16 stretcher positions and a hospital tent that will hold 22 cots. It is controlled by a 2-way police radio and contains equipment for fighting fires, floods, cyclones, tornadoes, and other disasters.

This unit will be used to answer calls from any part of Nebraska and can act as working headquarters for physicians and nurses in the event of emergencies.

Paul Halpine, manager of the Nebraska Association, is supervising the unit's state-wide tour.

small plant operations are now included in their management's supervisory training course. An annual three-day Industrial Institute at the Pennsylvania State University has been designed for small industry.

-H. H. Brainerd, Western Pa. Safety Council (Small Business)

Keep it Clean

Plant men are learning what every housewife already knows good housekeeping means efficiency and safety.

Since the fertilizer business is seasonal, a general housecleaning takes place during the slack months. During this time, the chance of accidents is far less than during peak seasons. When we really need good housekeeping is during rush periods.

An orderly plant is a more effi-

cient plant, and has an effect on the worker's mental attitude.

-Grayson B. Morris, Cooperative Fertilizer (Fertilizer)

Strong as Weakest Link

How good is good equipment with a poor operator?

Even if the equipment is the best available with all the latest features, its use presents many hazards that can be overcome only by the use of intelligence, care and common sense. It is essential therefore, that the operators of such equipment be physically fit, mentally alert and thoroughly trained.

Responsibility for training rests squarely on management.

—M. H. Talbot, Kingsbury & Co. (Fertilizer)

-To page 92



contributed so much-thanks a I'm available for all association

I Am an

members of the Council if they conduct a safety program for the prevention of employee injuries. All associations, regardless of their size, whether they be national, regional or local, have an equal chance to get me. Furthermore, an association that does not have an elaborate safety organization has just as good a chance with me as those with sizeable budgets and full-time safety personnel.

I had my third birthday during the last National Safety Congress. Many men came to my presentation luncheon to witness my annual debut. The Council makes this a big event, complete with all the pomp and pageantry befitting the occasion.

This year 11 associations were adjudged worthy of me. These associations represent more than 22,000 small firms, each employing less than 100 workers. I was all dressed up and presented at the Congress with the full Texas treatment by E. C. McFadden, vice president for industry, Napresident, Texas Employers Insurance Association. With me went the Council's heartiest congratulations for a job well done.

tional Safety Council, and vice

Association Award

By ROBERT CURRIE

Entries were first reviewed by several Council staff members. Those entries which were borderline cases were studied the second time, some the third time. Final rating and approval was given by the following Committee of Judg-

Fred Braun, (Chairman) vice-president, Employers Mutual of Wausau

William Barton, manager, Labor Relations Dept., United States Chamber

Al Larke, employer relations editor, Dun's Review and Modern Industry

S. R. Christophersen, president, Smaller Businesses of America, Inc.

Reuel Elton, executive vice-president, American Trade Association Executives Thomas M. Brennan, vice-president, National Association of Manufacturers

The proof that association safety programs have a worthwhile influence on their members is borne out by Figure 1. According to reports submitted by associations, the average of the per cent reduction in frequency rates for the past five years is 35 per cent as contrasted to a 22.9 for other firms in the same industries reporting to the National Safety Council. This is further contrasted to the 11.9 per cent reduction for those same industries according to Bureau of Labor statistics. Individual association accomplishments were quite impressive. For example, the Folding Paper Box Association of America could boast a 62 per cent reduction in four years and the British Columbia Lumber Manufacturers Association, 56 per cent in five years.



'M quite new, only three years old. Yet, already, I'm well known. My basic reason for existing is to stimulate influential groups to help reduce accidents in the smaller companies. I am the National Safety Council's Association Safety Award.

I guess everyone has a goal in life. I have one too. Mine is to:

- ... Promote more safety activity in existing association programs.
- ... Stimulate other associations to encourage the safety effort among their members.
- ... Foster more cooperation among associations and safety organiza-
- ... Help collect association safety material and other information so the Council can better serve its associations and other members.

amount of good safety material to flow into the Council (that's a switch). Each little bit contributes something to our knowledge of successful association safety programs. These bits will be used to help other associations reduce accidents in their industry. To those associations which have

I have caused a considerable 30 40

ROBERT CURRIE is Senior Engineer, Small Business Program, National Safety Council.

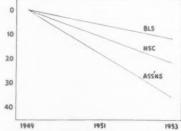


Figure 1. Average of the per cent reduction of frequency rate for comparable industries reporting to the Bureau of Labor Statistics (BLS), the National Safety Council (NSC) and the award winning associations.

Safety Services

The wide scope of activities reported to the Council by associations provide new ideas which other associations may find helpful in their task of reducing employee injuries. For example,

The Can Manufacturers Institute, Inc., provides convenient reference material on looseleaf data sheets containing promotional, organizational, and technical reports.

The Steel Founders' Society provides a "Serious Accident Bulletin" which describes a serious accident in the industry and means of preventing a recurrence.

The Portland Cement Association makes available for employees of the industry 1000-hour safety buttons.

The Associated General Contractors national headquarters acts as a clearing house of safety information for its 121 local chapters. It encourages participation and enlargement of local chapter programs.

The British Columbia Loggers Association has initiated a "Safety Week."

The variety of activities is brought out in Table I. A glance shows half of the associations that submitted entries are engaged in every activity listed. Even more encouraging is that all associations that submitted entries:

- ... have safety committees
- ...promote safety activity among their member companies
- ... collect accident statistics
- ... publish minutes of their safety meetings
- ...hold association safety conferences

Table I - 1954 Association Award Entry Activities

1	ACCIDENT EXPERIENCE	NO. OF ASS'NS
	25 per cent maximum credit	6
	Less than 25 per cent credit	11
II	SAFETY ORGANIZATION — 15 PER CENT Staff Personnel	
	Full time	9
	Part time	
	Safety Committees	
	Safety discussed by other committees	13
	Promote safety activities	
	SERVICE TO MEMBERS — 15 PER CENT	
III	Danit 1 and	10
	Surveys of safety activity	
	Collection of accident statistics	
	Safety contests	
	Consultation	9.00
	Library service	15
IV	ASSOCIATION SAFETY PUBLICATIONS - 15 PER CENT	
	Manuals	8
	Technical bulletins	11
	Rule booklets for employees	
	News Letters	
	Minutes of safety meetings	
	Posters	
	Films, charts, etc	
V	PUBLICITY — 15 PER CENT	10
	Trade journal articles	
	Newspaper, radio, TV	
	Association safety conference	17
VI	COOPERATION WITH SAFETY AGENCIES - 15 PER CENT	
**	Participation on safety committees of others	15
	Data to N.S.C. or Local Councils	
	Publications, research, conferences	
	Advice, speaking engagements, etc.	
	nurice, speaking engagements, etc.	

These are fundamental. It's no surprise that the frequency rate of members of these associations is dropping faster than the rate in their respective industries. And what's so hard about developing these fundamentals? Sure it takes some effort, but doesn't

everything? In addition, it does not cost much. The savings to the industry far exceed this cost.

The Folding Paper Box Association of America has supplied data that enables us to illustrate the benefits of an association

-To page 72

A few of the association publications that are helping members promote effective safety campaigns.



Wire from WASHINGTON

By HARRY N. ROSENFIELD Washington Counsel, National Safety Council



THE MAJOR SAFETY DEVELOPMENTS in Washington, with Congress adjourned, are now occurring in the executive departments of the Government.

Highways

The President's Advisory Committee on a National Highway Program, composed of five members under the chairmanship of General Lucius D. Clay, held two days of public hearings on the President's proposal for an expanded road construction program. The Committee heard some 22 witnesses, representing national organizations.

Among those who testified were people in the motor, trucking, bus and petroleum industries, agriculture, public officials, road construction, railroads and chambers

of commerce.

General Clay's statement at the start of the hearings indicated that his Advisory Committee agreed completely with the President as to the need for additional highway construction to assure an adequate highway system. He announced the results of a survev. by the Bureau of Public Roads, of estimates of highway construction needs. This totalled \$101 billion.

Of this amount, some \$46.8 billion is likely to be available under present programs. The Committee regarded its task to be that of indicating to the President how the other \$54.2 billion could be financed and how the construction could be organized and executed. The Advisory Committee hopes to complete its report in December.

Industrial

The health, safety and coal mine inspection activities of the Bureau of Mines were reorganized in accordance with the recom-

mendations of a 5-man survey team's report to the Secretary of the Interior. (For this report, see WIRE FROM WASHINGTON for September.) The reorganization. which goes into effect about January 1, 1955, creates separate Divisions of Health, of Safety, and of Coal Mine Inspections, all located in Washington, and establishes eight district and 12 subdistrict offices throughout the country which are independent of the Bureau's regional organi-

The plan also sets up within the Bureau of Mines an office of Assistant Director for Health and Safety. The Division of Safety will include a branch of accident analyses located in Washington and a branch of electrical-mechanical testing located in Pittsburgh.

Two decisions were handed down by a Hearing Examiner in the Wage and Hour and Public Contracts Divisions of the United States Department of Labor. Both involved proceedings against coal mine operators, under the Walsh-Healy Public Contracts Act, for having caused and permitted employees engaged in work on contract with the United States to work in conditions hazardous to health and safety.

Coal mines involved had been found by the Federal and State Coal Mine Inspectors to fail to comply with Federal and state safety codes and with the safety provisions of the Government contract. The hearing examiner sustained these rulings on the facts, and rejected a contention that a good safety record rendered code compliance unnecessary. (In the Matter of Paul Callis, PC-565, September 30, 1954; In the Matter of Whitwell Coal Corp., PC-566, Sept. 30, 1954.)

The Interstate Commerce Commission announced changes in its regulations concerning the transportation of explosives and other dangerous articles, and its proposals to make further extensive changes.

Aviation

The Air Coordinating Committee, in its 8th Annual Report to the President of the United States. listed as one of its important accomplishments during the past year the establishment of procedures designed to prevent midair collisions. The implementation of this plan is under consideration by CAA and CAB.

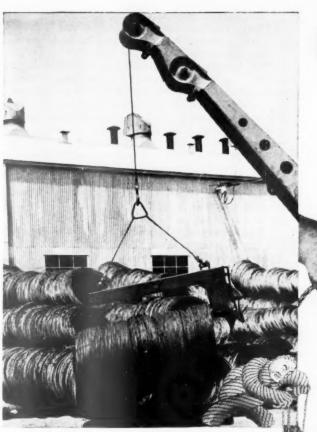
Home Safety

The Department of Health, Education and Welfare has given notice of proposed regulations concerning tolerances and exemptions for pesticide chemicals on agricultural commodities, and has invited views and requests for a hearing on its proposals.

Government Operations

The President requested every department and agency head within the Federal Government to set up effective safety programs to safeguard Federal employees from accidents. He asked the Secretary of Labor to assist other Government agencies in developing such programs. The President approved a recommendation of the Federal Safety Council of the Department of Labor, for an annual Presidential safety citation to the federal department which makes the greatest progress in accident prevention.

The difference between you and other people: Their money looks bigger and their troubles smaller.



Do Your Worst To This FREE

Tuffy

KINK IT!

LOOP IT! JERK IT!

Tuffy HOIST LINE

Here's A Twin To Tuffy Slings that's specially designed to match their strength and wear-ability! Tuffy Hoist Line gives you more safety from drum to sling and built-in service life to handle more loads.

No Chance For Ordering Mixups because there are no complicated specifications! Just tell your distributor the length, diameter and "Tuffy Hoist Line." Try Tuffy, whether you use overhead, stiff leg or mobile cranes, derricks or clamshells!

Your **Tuffy** Distributor Stocks Against Your Requirements

When You Need Replacement Rope, you often need it fast. And that's where your Tuffy distributor comes in handy. Give him an idea of your requirements and he will stock ahead of your replacement schedules from his nearby mill depot. Give him a call now!



You Prove How Tough Tuffy Slings actually are... to your complete satisfaction... with the 3-ft. Tuffy Sling we give you! We're convinced you'll say it's stronger, more flexible, more economical than any sling you've ever used. Here's why:

Tuffy Slings Are Made in a 9-part machinebraided wire fabric construction that's extra flexible to resist kinking. If you do succeed in putting a kink in it, see how easily your Tuffy Sling straightens out with no material damage.

Proof-Test Tuffy Up To Twice its rated working load. Prove to yourself that Tuffy Slings are the toughest in the business!

TEAR OFF AND MAIL COUPON NOW

Union Wire Rope Corpo 2224 Manchester Ave.,	
At no cost or obligation FREE 3-Ft. Tuffy	to me, please rush the material I have checked: Sling!
FREE Sling Hand Factory-Fitted Ty	dbook and Rigger's Manual, Featuring 12 Tuffy pes!
☐ Name and Addr	ess of Tuffy Distributor Nearest Me!
FIRM NAME	
BY	TITLE
ADDRESS	<u>}</u>
CITY	ZONE STATE



Sing We All Noel!

GETTING INTO the mood to write a Christmas piece a week before Thanksgiving isn't easy—at least to write something that doesn't sound conventional and trite.

Ideas for Christmas homilies have come from a variety of sources, ranging from the daily papers to the second chapter of Luke's gospel. This time it came from the address by Mr. Crawford H. Greenewalt at the Congress Banquet.

By a somewhat remote association of ideas, Mr. Greenewalt's thoughtful comments on the value of the individual seemed to give new meaning to the Christmas text, "The Word was made flesh and dwelt among us." And to a line of Charles Wesley's beloved hymn, "Pleased as man with man to dwell."

The Incarnation, however you may interpret it theologically, is an expression of the essential dignity and worth of man and a reminder that he has both a body and a soul. Here is something that gives added meaning to our efforts for safety.

My editorial colleagues — Norval Burch, Tom Dodds and John Gwin—join me in expressing appreciation for your efforts on behalf of safety throughout the year and wishing you a merry and satisfying Christmas.

To which it seems fitting to add the benediction with which Mrs. Jean Wade Rindlaub concluded her address at the Annual Meeting:

May God bless you, as the prayer book puts it, in your innocent endeavors.

Father Andrews

Those who have been following the Diary of a Safety Engineer will be interested in knowing that the author, The Rev. E. W. (Bill) Andrews, has been ordained a priest of the Episcopal Church. He is now vicar of Calvary Church in Roundup, Montana, where he went as a lay missionary in June 1952 to take charge of a small but struggling parish which has grown to include the whole county.

In ministering to his flock, Bill has learned that a minister, like a doctor, becomes involved in an unusual number of the tragedies of life. Recently he wrote:

"Summer ended in some intense, heart-rending drama, centering around some accidental deaths, with me in the middle as close personal friend but standing only in place of the people's absent pastor. So I had a maximum of personal emotional involvement and a minimum of insight into the basic spiritual problems with which I had to deal.

"Yet, by the curious inversion which seems to be the law of the ministry, no sermon I ever preached in sure knowledge of what I should say and how I should say it has had anything like the impact of the few words I spoke at that funeral in near panic, with hands shaking, with deep and unresolvable doubts about what I should say.

"I'm beginning to think this community is disaster ridden. Out of a population of 5,000 we counted up seven accidental deaths to county residents in the last ten months. Two drownings, two firearms, two at work, and one in traffic. In addition, we killed two non-residents in traffic.

"Then a week ago the whole above-ground works of a big mine went up in the most spectacular fire I ever saw—frame buildings out beyond the city water mains and a little volunteer fire department pumping out of ponds and hauling water in tank trucks.

"Maybe we ought to make Musselshell County a guinea pig for safety reform."

In This Issue . . .

Many of the inventive geniuses of the past would have a hard time landing a job in one of our big corporations—unless the employment manager happened to be one of those individuals who used intuition as well as the standard tests. Group effort has made much of our progress possible but we should not overlook individual contributions, Crawford H. Greenewalt told the Congress Banquet audience. (Page 18)

Highlights of the Congress in words and pictures will be found on page 22 and succeeding pages. Other Congress features include: Excerpts from papers (page 36), General Chairman of Sections (page 46), and the Exposition (page 65).

And don't forget S-D Day, which has the personal support of President Eisenhower and is being conducted by the President's Action Committee for Highway Safety. December 15 will give your community an opportunity to prove that an accident-free day is possible. (Page 30)

An eye protection program, in the experience of many companies, is a sure and profitable investment. Here are the facts and figures from Sperry-Gyroscope's program. (Page 28)

Carman Fish

HRI.

PUT IT OUT IN SECONDS

with a Kidde Portable extinguisher

Unless you get the jump on fire the minute it starts, you stand a good chance of kissing your business good-bye.

That's why it's so important to have a Kidde portable extinguisher near every fire hazard in your plant.

Protect motors, electrical equipment, flammable liquids and machinery with Kidde portables. Then, when fire strikes, you're ready for it.

Just grab a Kidde CO₂ or dry chemical portable, aim the horn, pull the trigger, and—Whoosh! No more fire!

Your next fire could be your last . . . Contact Kidde today!

Kidde



The words 'Kidde', 'Lux', 'Lux-O-Matic', 'Fyre-Freez' and the Kidde seal are trademarks of Walter Kidde & Company, Inc.

Walter Kidde & Company, Inc. 1245 Main Street, Belleville 9, N. J.

Walter Kidde & Company of Canada, Ltd., Montreal-Toronto

THE ACCIDENT BAROMETER



Prepared by the Statistical Division, National Safety Council

Accidental deaths in August numbered approximately 7,900, a decrease of 5 per cent from 8,300 in 1953. There were reductions in motor-vehicle and work accident deaths. Deaths from home accidents were more numerous than last year, while public non-motorvehicle deaths showed no change.

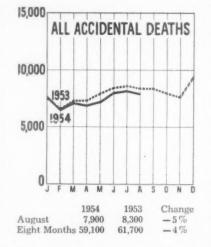
The eight-month death total was 59,100, a decrease of 4 per cent from the 1953 comparable total of 61,700. Aside from a small increase in public non-motorvehicle accident deaths, all other classes showed some reduction from last year.

Motor-Vehicle Deaths

There were approximately 3,300 deaths from motor-vehicle accidents in August, or 10 per cent fewer than in 1953. Compared to 1952, it was a decrease of 8 per cent.

Deaths during the eight months totaled 22,780, a reduction of 6 per cent from last year. The death rate per 100,000,000 vehicle miles was 6.2, a decrease of 9 per cent from the 1953 comparable eightmonth rate of 6.8.

Among the 48 states which reported for eight months, 32 had fewer deaths than last year. 2 had the same number and 14 had more deaths. Reporting cities with populations of more than 10,000



had a decrease of 11 per cent for August and 9 per cent for the eight-month period.

Regional changes from 1953 in the eight-month death totals were:

North Atlantic	- 8%
South Atlantic	-10%
North Central	- 6%
South Central	- 2%
Mountain	- 1%
Pacific	-12%

Work Accidents

Deaths from work accidents in August totaled approximately 1,200 or 100 fewer than last year. The total for eight months was 9,300, a reduction of 6 per cent from 9,900 in 1954.

The August frequency rate per million man-hours in 18 sectional accident prevention contests conducted by the National Safety Council was 6.35, a decrease of 8 per cent from last year. The August rate for plants in community council contests was 5.76, a reduction of 16 per cent. The eight-month rate in sectional contests was 5.64, a decrease of 10 per cent; in community council contests it was 6.61, also down 10 per cent.

Public Deaths

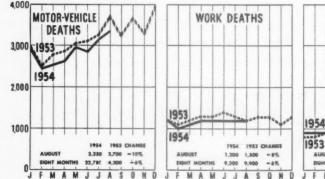
Public non-motor-vehicle deaths in August numbered 1,600, about the same as in 1953.

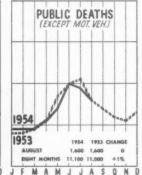
Deaths during the eight months totaled 11,100, an increase of 1 per cent over last year. Increases in deaths from falls and unclassified public accidents were nearly offset by decreases in fatal burns and transportation accidents. Deaths from drownings and firearms accidents showed little change from 1953. Increases were reported among persons 45 to 64 years and 65 years and over while other age groups showed small reductions from last year.

Home Deaths

Deaths from home accidents numbered approximately 2,100, an increase of 5 per cent over 1953.

The eight-month death total was 18,100, a decrease of 4 per cent from last year. There were small reductions in deaths from poisonings, mechanical suffocation and falls, a small increase in burns, and no change in fatal firearms accidents. All age groups showed some decreases from 1953 with the greatest improvement recorded for persons 15 to 24 years old and the least for persons 45 to 64 years of age.









Ground crew workers have found Neo-Cork soles and heels best for their jobs, too. These high quality, non-marking soles, give all around protection-protects the surface of the plane and affords protection to the worker from slipping on the sleek, smooth surfaces.

Neo-Corks are extremely flexible, water-proof and resist the oil, grease and gasoline conditions so prevalent in airplane maintenance work.

For greater comfort, safety and longer wear, sell air-ground crew workers shoes equipped with Neo-Cork soles and heels—the lightweight soling material with the balanced formula.

"Sell 'em the Shoe with the sole for the job"

Gro-Cord offers the only complete line of industrial workshoe soles that enable you to assure workmen of greater satisfaction through comfort-safety and longer wear, regardless of job conditions. Get acquainted with this outstanding line. Write for full information, today!

GRO-CORD RUBBER CO.

GRO-CORD RUSSER CO. of CANADA LTD.
Tillionburg, Ontario

GENERAL CHAIRMEN NSC SECTIONS —1954-55

Elected at the 42nd National Safety Congress

Aeronautical Industries

Fred R. Temple, safety supervisor, Consolidated Vultee Aircraft Corp., Fort Worth, Tex.

Air Transportation

H. W. Schilling, safety engineer, Trans World Air Lines, Kansas City, Kans.

Automotive and Machine Shop

M. F. Biancardi, manager, Health and Safety Department, Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

Cement and Quarry

T. W. Jones, New Haven Trap Rock Co., New Haven, Conn.

Chemical

G. L. Gorbell, safety director, Monsanto Chemical Co., St. Louis, Mo.

Coal Mining

W. J. Schuster, safety director, Hanna Coal Co., St. Clairsville, Ohio.

Construction

George O'Rourke, Sr., O'Rourke Construction Co., Dallas, Tex.

Electrical Equipment

James A. Edmonds, vice-president, Daniel Wood-head Co., Chicago.

Fertilizer

T. J. Clarke, personnel director, G. L. F. Soil Building Service, Ithaca, N. Y.

Food

R. C. Leitner, supervisor industrial relations, Libby, McNeill & Libby, Chicago.

Glass and Ceramics

Harry A. Jackson, Frigidaire Division, General Motors Corp., Dayton, Ohio.

Marine

Harry X. Kelly, Delta Line, New Orleans, La.

Meat Packing, Tanning and Leather

Alex Spink, director health and safety, Kingan & Co., Indianapolis, Ind.

Metals

Gerard O. Griffin, director of safety, Dravo Corp., Pittsburgh, Pa.

Mining

George Gedge, safety director, Calumet & Hecla Consolidated Copper Co., Calumet, Mich.

Occupational Health Nursing

Mrs. Jay Stanley, R.N., Union Carbide and Carbon Corp., Chicago.

Petroleum

John H. McKenzie, safety director, General Petroleum Corp., Los Angeles, Calif.

Power Press and Forging

Edward A. Hessmer, safety director, The Oliver Corp., Battle Creek, Mich.

Printing and Publishing

Peter J. Bernard, director of personnel and safety, H. Wolff Book Manufacturing Co., New York.

Public Employee

John E. Pagnard, safety coordinator, City of Columbus, Columbus, Ohio.

Public Utilities

W. S. Kitchen, system safety supervisor, Appalachian Electric Power Co., Roanoke, Va.

Pulp and Paper

Dallas E. Henry, safety coordinator, Southern Advance Bag and Paper Corp., Hodge, La.

Railroad

F. R. Callahan, director safety and compensation, The Pullman Co., Chicago.

Rubber

T. J. Cain, Jr., The B. F. Goodrich Co., Akron, Ohio.

Textile

H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, N. C.

Wood Products

Charles R. Zeskey, chief engineer, T. H. Mastin & Co., Kansas City, Mo.

Complete lists of the executive committees of the various sections will be found in the Sectional News Letters.

grings to fill sullying in the mosto

Safety King Lift King Braided King Économy King



LOWERY BROTHERS

PORTLAND

GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

By TOM A. BURKE

Assistant Director, Western Region, NSC

Industry and Local Councils

Industrial management looks to the community safety council to help protect plant workers from away-from-work accidents, Herman J. Spoerer, director of industrial relations, the Youngstown Sheet and Tube Company, and recently elected Vice-President for Industry, NSC, told 100 safety council managers at their annual meeting in Chicago, October 15-16.

Spoerer urged the managers to intensify their off-the-job activities and indicated that industrial leaders are viewing with alarm the number of accidents occurring to workers "after the whistle blows."

"Here is where you can render a real service to your industrial members," he said. "Today, when two plant workers are being killed in off-the-job accidents for each employee killed by accidents while on the job, it becomes apparent that management needs a lot of help in trying to hold down these casualties that occur away from the plant."

The speaker also stressed the importance of a well-balanced local council program, one that would cover all fields of accident occurrence in the community. He urged strong educational programs in the fields of traffic, home, and school safety as well as occupational activities.

Speaking as a former local council president as well as an industrialist, Spoerer asked the managers to give special attention to the small plant safety problem. He pointed out that the small plant record has not been good and the experience of the small plants is reflected in the record of

community safety accomplishment. In turn, the national occupational safety picture is definitely influenced by the small plant experience.

Spoerer, as the first president of the Evanston, Ill., Safety Council years ago, made the suggestion that an Accident Prevention Bureau be created within the Evanston Police Department. Franklin M. Kreml, then a member of the Department and now head of Northwestern University Traffic Institute and Vice-President for raffic and Transportation, NSC. was chosen as the first director of the Bureau. Later, when Spoerer was transferred to Youngstown, he maintained his interest and faith in community safety effort and was one of the civic leaders who organized the Safety Council of Greater Youngstown and served as its first president.

Oakland's "Night of Nights"

The Eastbay Chapter, NSC, always makes a feature of its award presentation in its annual Industrial Safety Contest and on October 14, the red carpet was again rolled out. A dinner audience of nearly 500 representatives of top management, supervisors, safety engineers, committeemen, and invited guests, heard Alexander R. Heron, vice-president of Crown-Zellerbach Corporation, a widely known authority in the field of industrial relations, as speaker of the evening.

Six divisional awards were presented and 65 firms received noaccident awards, an unprecented number of contest participants to go through the contest period without having any lost time injuries. The banquet was held at Oakland's Villa de la Paix. The Northern California Industrial Safety Council was co-host for the occasion.

"House of Hazards"

The Rochester Safety Council of the Rochester Chamber of Commerce, always seeking to improve its Fire Prevention program, this year added a new teaching aid, "House of Hazards." It was on display during "Fire Prevention Week," and commanded the attention and interest of large crowds who watched the demonstration and learned how to eliminate fire causes in their homes. "House of Hazards" was one of several highlights in the busy schedule of activities planned by Manager Bill Keeler and his Fire Prevention committee, with the cooperation of the City Fire Bureau of the Department of Public Safety, the Monroe County Volunteer Firemen's Association, schools, industry, and other organized groups. A parade climaxed the week's program.

Grand Rapids Occupational

The complete 1954-55 scheduled programs of the Industrial, Commercial Fleet, and Industrial Nursing and Health Divisions of the Greater Grand Rapids Safety Council as recently published, list many subjects of pertinent interest to be discussed by leading authorities in each of the three fields. They include chemical handling and storage; use and care of grinding wheels; crane and hoisting equipment, care and maintenance; off-the-job safety; accident reporting; accident costs; vacation safety; facial protection;

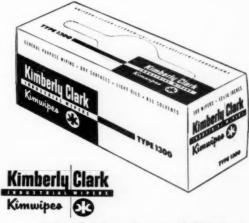
-To page 95



Not if you use new, disposable KIMWIPES!

Don't let expensive cloth and waste wipers rob you of profits. Replace them with Type 1300 KIMWIPES—the modern industrial wipers that give you four to ten times more wiper area per dollar!

Yes, and new Kimwipes 1300 are soft, strong and absorbent. A full 12" x 18" in size, they hold up to 8 times their own weight in liquids. They're non-abrasive, too. There's no holdover of metal chips or other infectious material that may cause dermatitis and loss of man hours. Type 1300 Kimwipes are absolutely clean to start with, and are disposed of after use. Ask your salesman for samples. And remember, you can also buy Type 900-S Kimwipes (optical wipers) and Type 900-L Kimwipes (regular wipers). Save money. Order today!



Kimberly-Clark Corporation . Neenah, Wisconsin

INDUSTRIAL HEALTH



Abstracts of current literature on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA

Industrial Department, NSC

"Safe" Solvents

Hazardous Exposure to Some So-Called Safe Solvents, by James P. Hughes, M.D., the Journal of the American Medical Association 156:234-237 (September 18, 1954).

THERE IS SCARCELY a business or industrial plant which does not use some solvent in some quantity. In the choice of industrial solvents, it is generally necessary to compromise between the technological requirements, the fire and explosion hazard and the hazard to health. The solvents which are quite acceptable as being of relatively low toxicity may become sources of hazard as the result of grossly careless handling and the ones which are known as highly toxic might produce health effects due to relatively minor exposure when the control measures are only slightly inadequate.

Methylene chloride is a solvent which has been described as "practically harmless" in ordinary use and with considerable justification, but this article described a case of lung irritation produced by degreasing metal parts for four hours in an open drum of methylene chloride. The lung irritation in this case disappeared within 24 hours and the chest X-ray after three days was normal. This appears to be the first report of lung irritation from methylene chloride, although there have been previous reports of irritation of the upper respiratory tract from industrial exposures.

He also reports a case of acute liver injury from repair and maintenance work on dry cleaning systems containing tetrachloroethylene as the solvent. These systems were invariably in rather hot and humid environments with little or no mechanical ventilation.

These cases as well as some cases of eye effects from drinking methanol obtained in places of employment are reported as a reminder that even the least toxic solvents must be handled with some care and respect and an understanding of the fact that the human system has only a definite and limited capacity for handling any solvent whatever.

Pensions and Jobs

Pensions as a Stumbling Block to Employment, by J. Gordon Coburn. Industrial Canada 55:56-59 (September, 1954).

It is generally thought among Canadians that pension plans are a desirable thing and employers have been establishing such plans in Canada in unprecedented numbers over the past ten years. The government has made tax concessions to encourage such developments and employees have been happy to contribute to the plans.

Unemployment is universally conceded to be a bad thing, but the situation is that pension plans contribute to unemployment among the older workers. In Canada it is estimated by the Department of Labor that 40 per cent of those seeking employment are 45 or older and the Department of Labor indicates that this is a minimum figure because many other older workers have become discouraged and stopped registering with the employment service.

The pension plans contribute to unemployment because of compulsory retirement ages which force individuals out of jobs when they are quite capable of working satisfactorily and quite willing to work, and because the higher pension costs at old ages induces companies to either set up a specific policy about hiring older employees, to exclude the employees hired at older ages from participation in the pension plan, or simply to attempt to select younger employees without setting up a definite formal policy on the matter.

The factors tending toward these restrictions can be eliminated in most cases. The compulsory retirement ages are not at all necessary to satisfactory pension administration. It is generally necessary to define a "normal retirement date" for the pension plan, but this necessity is only for the purposes of determining pension costs and does not in any way preclude the deferment of retirement.

Such deferment may eventually work to the considerable decrease in actual costs. The policy of retirement based on capacity and desire to work does require an application of management's judgment which is not necessary under a fixed arbitrary retirement age but this is nothing which should not be expected of management in any phase of the operation of a business.

Many pension plans are set up so that new employees hired at age 45 or older cannot be admitted to the plan. Such restrictions are no longer as common as they once were, but any policy which increases the average age of the employees is bound to eventually, if not immediately, increase the cost of the pension plan. The use of deferred retirements can in many cases offset such increased costs, either partially or completely. At the same time, this can alleviate to a considerable extent the problem of the unemploved older worker.

If further devices are needed to offset the excess pension cost due to hiring older workers, several are available. One of the simplest is to maintain the employer's contribution at a fixed percentage of the employees' wages and to make the pension equal what can be bought with this contribution plus whatever the employee contribution will buy. An alternative to this is to have the employees' contributions on a graduated scale depending upon the age at admission to the plant so as to compensate the company for the increased cost of doing business with the older age employee.

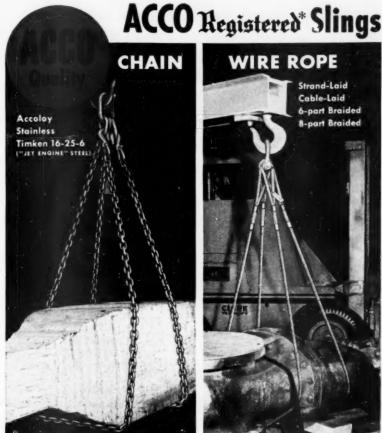
Beyond doubt, the best solution is to have the employee who leaves a company after a reasonable period of service take his pension benefits in the form of "paid up" insurance, which is now possible under almost all pension plans. If he takes with him "paid up" pension insurance to his new place of employment, his loss would not be so drastic as to be disastrous. This, however, seems to be about the hardest solution to get adopted, because of the possibility of withdrawing his own contributions plus interest in cash which exists in most pension plans.

Health Education

Health Education for Industrial Employees at the Hanford Atomic Products Operation, by Caesar Branchini. Public Health Reports 69:883-888; September 1954.

The Hanford Atomic Products operation, run by General Electric Company for the Atomic Energy Commission, is unusual in its Medical Department because Richland, Wash., is a "gov-ernment town," built and operated for the Atomic Energy Commission to provide a place for employees of Hanford Works to live. All medical facilities for both town and plant are administered by the company through the single medical department. The health education project is carried on by the Industrial Medical Subsection of the Employee and Public Relations Department.

A Health Activities Committee consisting of one or more representatives of each department. —To page 70





Trade Mark Registered

ACCO makes both Chain and Wire Rope Slings

• Safe shop practices call for different types of slings in different types of work. You can be sure of the right slingwhether made of chain or wire ropeby relying on ACCO Registered Slings.

Every part of each ACCO Registered Sling is made by American Chain & Cable to those specifications which have proved best during our many years of field testing and checking ACCO Registered Slings in use by our customers.

American Chain & Cable men are prepared to advise you on sling problems. They offer you long and objective sling experience. They also offer you six big advantages in ACCO Registered Slings. If it's an ACCO Registered Sling it's safe.

WHAT "ACCO REGISTERED" MEANS ...

- 1 The best material
- 2 Unit safety factor (on bodies, rings, links, hooks)
- 3 Proof test of each completed sling
- Actual field service test
- of each design 5 Metal identification ring or
- tag on each sling 6 Signed Registry Certificate with each sling





Atlanta, Boston, Chicago, Denver, Detroit, Houston, Los Angeles. New York, Odessa, Tex., Philadelphia, Pittsburgh, Portland, Ore.,

San Francisco, Wilkes-Barre, Pa., York, Pa., Bridgeport, Conn. In Canada: Dominion Chain Co., Ltd., Niagara Falls, Ont.

THE SAFETY LIBRARY



Books, Pamphlets and Periodicals of Interest to Safety Men

Compiled by Ruth Parks, Librarian, NSC

BOOKS AND PAMPHLETS

A Fresh Viewpoint in Occupational Medicine

Modern Occupational Medicine, edited by A. J. Fleming, M.D., and C. A. D'Alonzo, M.D.; associate editor, J. A. Zapp, Ph.D. Published by Lea & Febiger, Philadelphia, 1954. 414 pages. \$10.

This book was produced by a group of 20 employees of the Du Pont medical and legal departments. All of the contributors have experience in the industrial applications of their specialties and all of them are expert in their particular fields. The result of this and of their ability to draw freely upon company records is the presentation of a good deal of practical material bearing upon the problems of industrial medicine, in a chemical plant, which has not been previously published anywhere.

In addition to the new factual material the book is, in a large measure, permeated by an attitude of getting on with the job in the most practicable manner available at the moment while collecting the facts necessary for doing it better in the future. This epitomizes the best in the American industrial community. An example of the practical approach is the addition of a chapter on the common household poisons. This is for the benefit of the industrial physician who is apt to be asked about such things because of his supposed close association with various chemicals in industry.

While it is directed at the industrial physician, and in some small parts will be of no interest to others, by far the larger portion of the book will be both of interest and of value to people interested in any phase of industrial health or safety. The book has been meticulously indexed.

You will enjoy it first to read for its fresh viewpoint and later to keep for a useful reference.

F. A. Van Atta

Dust

Meeting of Experts in the Prevention and Suspension of Dust in Mining, Tunneling and Quarrying. Record of Proceedings, December 1952. International Labor Office, Geneva, Switzerland. 1954. 3 vol. Free.

Employee Publications

How to Tell the Traffic Story. A Handbook for Industrial Editors. American Association of Industrial Editors. 1954. 16 p. Free. Available from executive secretary, James Limmer, 24 Fairfield St., Montclair, N. J.

Gas Industry

Standards of the NBFU for the Installation of Gas Piping and Gas Appliances in Buildings. National Board of Fire Underwriters, 85 John St., New York 38. 1954. 61 p. NBFU-No. 50. Free.

Mines

It Couldn't Happen (A Description of Five Unusual Fatal Mine Accidents). U. S. Bureau of Mines. 1954. 12 p. Information Circular 7694. Free. Available from the Bureau, Publication Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

Radiation

Permissible Dose from External Sources of Ionizing Radiation. National Bureau of Standards. 1954. 79 p. Handbook 59. 30c. For sale by The Superintendent of Documents, Washington 25, D. C.

Protection Against Radiation from Radium, Cobalt-60 and Cesium-137. National Bureau of Standards. 1954. 60 p. Handbook 54. 25c. For sale by The Superintendent of Documents, Washington 25, D. C.

Standards

Handbook of Industrial Safety Standards, Ninth Revision. Association of Casualty and Surety Companies, 60 John St., New York 38, 1954, 315 p. \$1.40.

MAGAZINE ARTICLES

Aeronautics

Protection from Aircraft Noise. By Horace O. Parrack. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 273.

Air Pollution

Medical Investigation of Air Pollution. By Paul Kotin. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 288.

Chemicals

Acute Toxicity Studies of Decaborane and Pentaborane by Inhalation. By J. L. Svirbely. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 298.

Inhalation Toxicity of Ninety Per Cent Hydrogen Peroxide Vapor. By Fred W. Oberst and others. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 319.

Economics of Safety

Safety Pays Off. By Robert Spencer. Pacific Factory. Oct. 1954. p. 34.

Fire Protection

Fire Prevention Program Well Organized at Worthington. By George E. Driscoll. The Plant. Oct. 1954. p. 43.

Health

Environmental Lung Cancer. By W. C. Hueper. Industrial Medicine and Surgery. Oct. 1954. p. 463.

Hematological Investigation on Workers Exposed to Manganese Dust. By Branko Kesic and Vera Hausler. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 336.

Noise

Noise Is Dangerous. By L. A. Watson. Supervision. Oct. 1954. p. 10.

Radiation

X-radiation from Electronic Power Tubes. By S. C. Ballard. AMA Archives of Industrial Hygiene and Occupational Medicine. Oct. 1954. p. 328.

President's Medal

Awards made by the National Safety Council for successful application of artificial respiration

Dale J. Nilles, installer-repairman, Northwestern Bell Telephone Co., Dubuque, Iowa—drowning.

WILLIAM C. TALBOTT, Tennessee Valley Authority — electric shock.

STEVE A. J. GRAHEK, warehouse man, Reserve Mining Co., Ely, Minn. — suspended respiration due to suffocation.

JOHN L. KENNEDY, electrician, Carbide & Carbon Chem. Co., Oak Ridge, Tenn. — electric shock.

KEITH LEVENTON, engineer, Permanente Cement Co., San Jose, Calif. — suspended respiration due to heart attack.

KARL J. HEINEMAN, SR., plant engineer, Chesapeake and Potomac Telephone Co. of Baltimore City, Baltimore, Md. — drowning.

Bert Earnest Eaton, laborer, U.S. Vanadium Co., Rifle, Colo. — electric shock.

James A. Jackson, combinationman, N.Y. Telephone Co., Waverly, N.Y. — drowning.

Domingo Monterio, staff sergeant, United States Air Force, Theodore, Ala.—drowning.

ROBERT A. BECHTOLD, general stocker foreman, Republic Letel Corp., Massillon, Ohio — drowning.

Charles G. Noble, Brentwood Park, East Greenfield, Quebec, Canada—electric shock.

MILTON PINCOMBE, carpenter, Dept. of National Defence, R.C.A.F.. Brentwood Park, East Greenfield, Quebec, Canada electric shock.

BILL WHITMIRE, student, Mobile, Ala. — drowning.

NATT R. RICKER, construction engineer (dams), Corps of Engineers. Belton, Texas—electric shock.

Too many of us are like wheelbarrows — useful only when pushed, and easily upset.

Scott AIR-PAK



Cool, fresh AIR in hazardous atmospheres!

Why take chances in explosive atmospheres when you can be assured of perfect safety with the Scott AIR-PAK. Breathe cool, fresh AIR with confidence and comfort.

It goes on and is ready for action in seconds. Just turn on the valve and you're ready to go. No complicated training or practice is necessary.

Other exclusive AIR-PAK features include a large-dial easy to read gage for constant, dependable check of remaining air supply. Cool air absolutely prevents lens fogging. The AIR-PAK is the most economical all-purpose breathing protection available. Operates for as little as 50c per hour with no waste.

For complete information write today!



THE PROPERTY OF THE PROPERTY OF THE PARTY OF

SCOTT AVIATION CORP.

211 ERIE STREET

LANCASTER. N. Y

Conada: Safety Supply Co., Toronto — Branches in principal cities Export: Southern Oxygen Co., 15 West 57th Street, New York 19, New York



PRODUCTION

depends on Hands Hands depend on





pH-6 is a specially formulated, sulfonated oil, bland skin cleanser . amazingly effective in removing oils. greases, and other industrial grime. Lotion-like effect actually protects the skin . . . leaving it clean, smooth, and supple.

New mild synthetic skin detergent with excellent foaming properties. Leaves no disagreeable soap odor on the skin.

You'll find both pH-6 and Neutra-Foam are surprisingly economical. Send coupon for literature and

CHEMICAL CO.

The Stepan Chemical Co. 20 N. Wacker Drive, Chicage 6, Illinois Please send pH-6, Neutra-Foam literature and samples.
Name
Firm
Street Address
City and State

In the Field of Safety

December 6-7, Baton Rouge, La.

Annual Louisiana Safety Conference (Hotel Heidelberg). Contact Col. Charles E. Doerler, Secretary, P.O. Box 1148, Shreveport, La.

Feb. 27, Mar. 1, New Orleans

Southern Safety Conference and Exposition (Jung Hotel). W. L. Groth, executive director, P.O. Box 8927, Richmond 25. Va.

Mar. 1-3, Urbana, Ill.

Forty-first Illinois Annual Conference on Highway Engineering. William S. Pollard, Jr., assistant conference director, College of Engineering, University of Illinois, Urbana, Ill.

Mar. 8-9, Philadelphia

Twenty-first Annual Philadelphia Regional Safety and Fire Conference and Exhibit. (Broadwood Hotel). Walter W. Matthews, managing director, Philadelphia Safety Council, 17th and Sansom Streets, Philadelphia 3, Pa.

March 21-22, Houston, Texas

Annual Texas Safety Conference (Rice Hotel). J. O. Musick, general manager, Texas Safety Association, Inc., 830 Littlefield Bldg., Austin, Texas.

Mar. 21-23, Los Angeles

Second Annual Southern California Safety Congress and Exhibit. (Ambassador Hotel). Joseph M. Kaplan, secretary-manager, Greater Los Angeles Chapter, NSC, 610 South Main St., Los Angeles 14.

March 29-31, Pittsburgh, Pa.
Thirtieth Annual Western Pennsylvania Safety Engineering Conference and Exhibit (Hotel William Penn). Harry H. Brainerd, executive manager, 605 Park Bldg., Pittsburgh 22, Pa.

Mar. 30-31, Indianapolis

Eighth Central Indiana Safety Conference and Exhibit (Claypool Hotel). Jack E. Gunnell, Indianapolis Safety Council, 320 N. Meridian St., Indianapolis 11, Ind.

Mar. 31, Apr. 1, Kansas City, Mo.

Central States Safety Congress (Municipal Auditorium and President Hotel). George M. Burns, director, Kansas City Safety Council, 419 Dwight Bldg., Kansas City, Mo. Apr. 4-5, Toronto, Ont.

Industrial Accident Prevention Associations, Annual Conference (Royal York Hotel). R. G. D. Anderson, general manager, 90 Harbour St., Toronto 1. Ont.

Apr. 11-15, New York

Twenty-fifth Annual Safety Convention and Exposition, Greater New York Safety Council. (Hotel Statler). Paul F. Stricker, executive vice-president, Greater New York Safety Council, 60 East 42nd Street, New York 17.

Apr. 19-21, Niagara Falls, N. Y. Fifteenth Western New York Safety Conference, in cooperation with the American Society of Safety Engineers (Niagara Hotel). Patsy E. Gismondi, executive secretary, 1436 Delaware Ave., Buffalo 9, N. Y.

Apr. 26-28, Grand Rapids, Mich.

Twenty-fifth Annual Michigan Safety Conference. (Pantlind Hotel and Civic Auditorium). R. H. Goring, executive secretary, c/o Michigan Bell Telephone Company, Detroit 26, Mich.

April 26-28, Cleveland

Twenty-fifth All Ohio Safety Congress and Exhibit (Hotel Cleveland and Hotel Hollenden). Headquarters at Hotel Cleveland. A. W. Moon, congress manager, c/o Division of Safety and Hygiene, Industrial Commission of Ohio, Columbus 15, Ohio.

May 16-18, Syracuse
Central New York Safety Conference
& Exposition. Newell C. Townsend, administrative secretary, Safety Division, Syracuse Chamber of Commerce, 351 S. Warren St., Syracuse 2, N. Y.

May 18-20, Winston-Salem, N. C.

Twenty-fifth Annual North Carolina Safety Conference (Robert E. Lee Hotel). H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, North Carolina.

June 2-4, Richmond, Va.

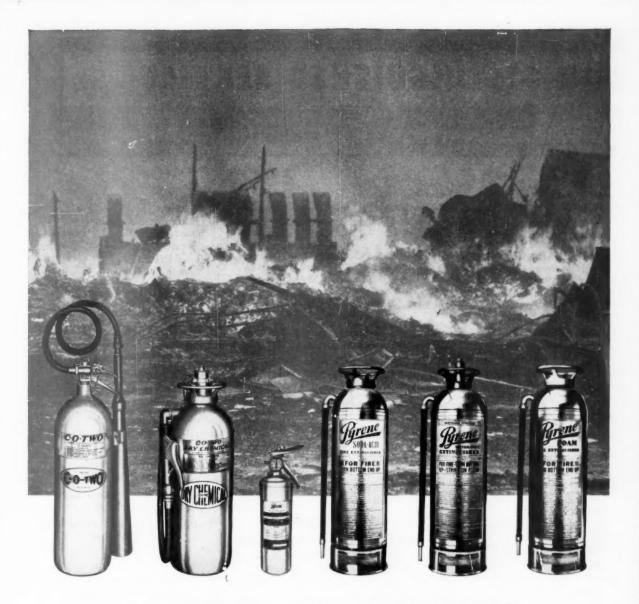
Virginia Safety Association, Annual Meeting. (Jefferson Hotel). William M. Myers, executive secretary, Virginia Safety Association, Room 302, 1103 E. Main St., Richmond 19, Va.

Oct. 17-21, Chicago

Forty-third National Safety Congress and Exposition. (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

When enthusiasm is inspired by reason; controlled by caution; sound in theory; practical in application; reflects confidence; spreads good cheer; raises morals; inspires associates; arouses loyalty, and laughs at adversity, it is beyond price.

-Coleman Cox



ALL TYPES...ANY CLASS FIRE!

Since different fire hazards require different types of fire extinguishers, PYRENE—C-O-TWO manufactures all types... the finest and most complete line on the market today.

When doing business with PYRENE—C-O-TWO, you receive unbiased advice on what is best for your particular fire hazards, whether class A, B or C.

Also, there is a well-rounded sales engineering organization having nation-wide representation to render top quality service wherever you're located.

Don't take unnecessary chances . . . the extensive fire protection experience of PYRENE—C-O-TWO over the years is at your disposal without obligation. Get complete facts now!



PYRENE - C-O-TWO

NEWARK 1 . NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada



COMPLETE FIRE PROTECTION

portable fire extinguishers . . . built-in fire detecting and fire extinguishing systems

CARBON DIOXIDE . DRY CHEMICAL . VAPORIZING LIQUID . SODA-ACID . WATER . CHEMICAL FOAM . AIR FOAM

FOR DISTINGUISHED SERVICE



National Safety Council Awards for Outstanding Records

THREE TYPES of awards are given by the National Safety Council to industrial units in recognition of outstanding performance in accident prevention:

1. THE AWARD OF HONOR is available to units whose records, though not perfect, meet rigorous standards of excellence. These standards take into account the previous experience of the unit as well as the experience of the industry in which it operates. A unit must qualify on both frequency rate and severity rate. The Award of Honor is available also to units which complete 3,000,000 man-hours without a disabling injury.

2. THE AWARD OF MERIT has similar, but less exacting, requirements. Minimum number of injury-free man-hours needed to qualify is 1,000,000.

3. THE CERTIFICATE OF COMMENDATION is available only for injury-free records covering a period of one or more full calendar years and totaling 200,000 to 1,000,000 man-hours.

Details of eligibility requirements may be obtained by writing to the Statistical Division, National Safety Council.











AWARDS OF HONOR

Crucible Steel Co. of America, Midland Works, Pittsburgh.

Curtiss-Wright Corp., Wright Aeronautical Div., Woodridge, N. J.

Ford Motor Co., Five awards: Aircraft Engine Div.; Cincinnati Transmission Plant; Dearborn Tool & Die Plant; Glass & Paper Plant; Ypsilanti Plant.

AiResearch Manufacturing Co., Aircraft Parts Div., Los Angeles.

Convair Div., General Dynamics Corp., San Diego Div.

Telechron, Ashland, Mass.

Hughes Aircraft Co., Culver City (Calif.) Plant.

Lago Oil & Transport Co., Ltd., Aruba Refinery, N. W. I.

Monsanto Chemical Co., Inorganic Div., Everett, Mass.

Moorman Manufacturing Co., Quincy, Ill. Entire company.

National Distillers Products, K. D. & W. Plant.

Westinghouse Electric Corp., Small Motor Div., Lima, Ohio.

AWARDS OF MERIT

Aluminum Co. of America, Fabricating Div., Massena, N. Y.

Armstrong Rubber Manufacturing Co., Des Moines, Ia. Entire company.

British American Oil Co., Ltd., Clarkson Refinery, Ontario.

Cabot Carbon Co., Schafer "A" Plant, Skellytown, Texas.

Celanese Corp. of America, Two awards: Amcelle Plant; Celriver Plant.

Chrysler Jet Engine Plant, De-

Consolidated Paper Corp., Ltd., Belge Div., Quebec.

Continental Can Co., Inc., Plant 77, Milwaukee.

Crucible Steel Co. of America, Park Works, Pittsburgh.

The Dayton Rubber Co., Thorobred Div., Waynesville, N. C.

Ecusta Paper Corp., Film Div., Pisgah Forest, N. C. Ford Motor Co., Five awards: Atlanta Assembly; Cleveland Engine Plant No. 1; Dearborn Specialty Foundry; Mound Road Plant; Steering Gear and Machining Plant.

General Electric Co., Two awards: Major Appliance Div., Nela Lamp Works.

Jones & Laughlin Steel Corp., Pittsburgh Works Div.

Mine Safety Appliance Co., Pittsburgh. Entire company.

The Ohio Rubber Co., Div. of Eagle-Picher Co., Willoughby, Ohio.

Pittsburgh Plate Glass Co., Milwaukee Paint Div.

RCA-Victor Television Div., Bloomington (Ind.) Plant.

Reynolds Metals Co., Reynolds Jamaica Mines, Ltd.

United States Government Printing Office, Washington, D. C.

Judith Waller Honored

Honorary membership in the National Association of Educational Broadcasters has been bestowed upon Judith Waller, director of public affairs and education of NBC's Central Division. The announcement was made during a recent meeting of the organization in New York, celebrating the 30th anniversary of the group. Only two other such memberships have been given.

Miss Waller has been in the broadcasting industry for more than 30 years and has received many acknowledgements for her work during that time. She is a member, Board of Directors, National Safety Council, and vice-chairman of the Public Information Conference.



"Bill thinks of the nicest things.

He gave me an extension telephone
for the kitchen and one
for the bedroom too."



"Thanks ever so much, son, for the extension telephone. It's a big comfort to have it close by in my bedroom."

HERE'S SOMETHING NEW

AND DIFFERENT FOR CHRISTMAS

Give an extension telephone to someone you love

Have you been searching for something new and different in a Christmas gift? Something that is distinctive, yet practical, and will last the whole year through?

You couldn't do better than an extension telephone for Mother or Dad, son or daughter, or Grandma and Grandpa. For 365 days and nights it will save steps, time and effort. And it's mighty handy, too, in an emergency.

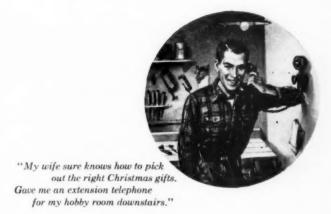
If you'll order in time we'll do our best to install the extension telephone before Christmas.

If that isn't possible, we'll deliver the telephone, attractively wrapped, so you can put it under the tree with the other gifts. Then we'll come around after Christmas and install it in bedroom, living room, or kitchen, or wherever you wish.

The cost is small-just pennies a day for each extension telephone. Just call the business office of your local Bell telephone company.



BELL TELEPHONE SYSTEM





CASES for COMMENT

Compiled by ROBERT D. GIDEL

Senior Engineer, Industrial Department, National Safety Council.

The Match Lost Its Head

At approximately 3:30 p.m. the injured employee with two other employees who had completed their day's work was riding back to company headquarters in the rear of a company truck. These employees work at different places in the area and are transported to and from these different locations in the company truck.

While riding, the injured employee had filled his pipe and removed a paper folder type of match from its folder and struck it away from him in order to light his pipe. The tip of the match flew off and struck him in the eye. He received a slight burn of upper and lower eye lid and the inside corner of the right eye. He did not lose time, and no further trouble with the eye was anticipated.

The truck was a pick-up type provided with canvas top and side curtains and closed back. The truck was traveling at a straight, even pace on a smooth road.

Decision. This was a very questionable case and the committee members had quite a difference of opinion. The judges concluded, though, that in this particular case, the injury had not arisen out of employment and should not be included in the industrial injury rates. The judges felt that it was such a borderline case they do not believe that this decision should be used as a precedent for somewhat similar cases.

Comment. It was necessary to transport the men in the truck from the work locations back to company headquarters. Therefore, the injury arose in the course of the employment. The question involved is whether it arose out of the employment. It

would seem that striking a match to light a pipe has nothing to do with the job requirements so that such an occurrence would not arise out of the employment. If, however, the man had gotten an injury by reason of some foreign object getting in the eye as a result of riding in a canvas covered truck it should arise out of this employment. By considering the foreseeability of a particular injury as related to the job itself we can better answer such questions.

Many types of injuries occur to employees riding in the back of trucks. Careful consideration must be given to seating arrangements, loading and unloading procedures, protection from the elements and, of great importance, selection of a competent driver.

Blood Donations

An employee who had donated blood for a hospital patient, during working hours, fainted and fell while walking from the operating room. He sustained an incised wound on the back of his head but was not disabled for duty.

Local timekeeping regulations provide that any employee may be excused from duty for no longer than two hours for the purpose of donating blood to the blood bank (at a hospital owned and operated by the employer), and to donors called upon to furnish blood, free of charge, to be used for immediate transfusions, without such time being charged against their leave. In other words, they receive only their regular pay for the period excused.

Should any injury sustained during this excused period, whether it occurs in traffic en route to or from, or at the hospital, be considered as an industrial injury within the meaning of the code?

Decision. The injury should be included in the company injury rates. Many of the comments submitted by the judges were quite interesting and valuable and have been included below.

Comments. Section 2.1.1 of the code states "in the course of employment shall include all time spent by employees in performing the work for which they were employed, together with voluntary work undertaken by them while on duty with the intention of benefiting their employer...."

-To page 93

IS THAT INJURY chargeable to your occupational injury record?

In some cases there is reasonable doubt as to whether the injury arises out of or in the course of employment. This can usually be decided by consulting ASA STANDARD CODE Z16.1-1945. If there is any doubt as to interpretation of the Code, the Committee of Judges of the American Standards Association's Sectional Committee is available to review the facts.

A few cases are discussed here. It is hoped they will aid readers not only in determining the chargeability of accidents but also in planning preventive measures. Highway

Wighway

By Paul Jones

Illustrations by Ralph Moses

HOT OFF THE PRESS!

ANT to get folks talking and thinking about highway safety? Then just hand them a copy of Highway Zoo. The Council's new 4-color booklet is a conversation piece. Ideally suited for use in off-the-job accident prevention programs, it will give zip to your safety efforts. And it is one book you can use as a souvenir item at your Safety Award Banquet, safety conference, etc. Many firms will use them in 1955 as mailing pieces. It will fit your program to a "T."

Prices: Single copy free; 2 to 9 copies, 10 cents each; 10 to 99, 7 cents; 100 to 999, 5 cents; 1,000 to 4,999, 4 cents; lower prices in larger quantities.

NATIONAL SAFETY COUNCIL

425 North Michigan Avenue • Chicago 11, Illinois

SMALL BUSINESSES and ASSOCIATIONS

By A. M. BALTZER and ROBERT D. CURRIE

Small Business Program Staff National Safety Council

AGC Sets the Pace

In dealing with association safety work at least five days a week, it is only fitting that we acknowledge the fine contributions that the Associated General Contractors of America has been making.

AGC's national headquarters has held Council membership for 35 years. This year a new AGC-NSC membership plan was developed whereby the national headquarters of AGC provides Council safety services to each local AGC chapter with an Accident Prevention Committee. In addition, the AGC makes valuable contributions to construction safety in its own right. For example, the AGC Manual of Accident Prevention in Construction is a standard for the industry, having been approved by the American Standards Association. Recently the AGC has authorized the Council to make this publication available as one of the features of the new construction membership.

By its very nature, construction is one of the more hazardous occupations. In promoting safety in this industry, we of the Small Business and Associations Program appreciate the valuable assistance from the Associated General Contractors of America.

Paper and Pulp Industry Reduces Frequency

Indicative of the growing interest in accident prevention in the paper and pulp industry are these statistics from the American Paper & Pulp Association which reports that 319 mills reported their accidents last year as contrasted with 300 in 1952 and 236 in 1951.

The over-all frequency rate of those companies reporting to this association is 11.83 for the year 1953, as compared to 12.63 for 1952. This is a reduction of approximately six per cent.

As in the previous year, the Safety Committee has used color in presenting the report; the statistics being printed in black and red—the red ink representing mills with frequency rates for the year higher than the average of the 319 reporting mills. In recognition of the accomplishment of mills "in the black," APPA presented an Award of Merit.

In this industry it is interesting to note that the frequencies of those mills employing less than 100 workers was about three times greater than those employing more than 500. In addition, mills employing between 100 and 500 show a frequency rate twice that of those employing over 500.

Association Briefs

The Association of Oil Well Drilling Contractors regards safety so highly that it has turned over its mailing list to the Council for membership solicitation in the Council. The association feels our services supplementing an already fine association safety program will enable its members to do an even more effective job in accident prevention.

The Linen Supply Association of America is again planning to include safety posters for truck displays. In addition to promoting safety, this activity makes for good public relations.

The American Management Association Work Shop in Orientation seminars are not neglecting an important part of sound business management—accident prevention. Again this year the Association has given appropriate time and attention to industrial accident prevention under the heading, "Improving the Plant Safety Program."

The Greater Chicago Hotel Association recently added accident prevention service for their members. The Association has distributed sample copies of the Safety Register, a Council publication directed to all hotel employees. Apparently this new service is meeting a serious need among the Association members for they quickly exhausted a supply of 9,500 booklets.

The Gray Iron Foundries Society is offering single copies of

1954 ASSOCIATION AWARD WINNERS

A feature story regarding these award winners appears elsewhere in this issue.

Associated General Contractors of America
British Columbia Loggers Association
British Columbia Lumber Manufacturers Association
Can Manufacturers Institute
Folding Paper Box Association of America
Industrial Accident Prevention Associations (Canada)
Manufacturing Chemists' Association
New York Shipping Association
Portland Cement Association
Society of Exploration Geophysicists
Steel Founders' Society of America

its Safety Rule booklet to anyone requesting it. Any Association considering publication of an employee rule booklet might well use this as their guide. Write to Small Business Program, NSC, for your copy.

The Muskegon Manufacturers Association reports a 53.6 per cent reduction in their frequency rate since their program started in January 1951. The rate for the first four months of this year is 16.0, based on more than 171/2 million man hours of work.

Eliminate Sirens on Army Vehicles

First Army has ordered elimination of the use of sirens on all military motor vehicles, including Army ambulances, while operating in the New York City metropolitan area.

This is a move to cooperate with existing New York City traffic ordinances that have recently eliminated the use of sirens on civilian ambulances.

Where "special right of way" is required in any of its eight-state area, First Army has issued to all installation commanders the following directive governing operation of Army emergency vehicles in the states of New York, New Jersey and New England:

"Even while on emergency missions, ambulances, fire trucks, and wreckers, while operating on public streets and highways, are not entitled to preferential traffic treatment, and drivers of these vehicles must comply with local traffic rules and regulations.

"Drivers of Army vehicles on emergency mission will:

"(a) Operate lights, sirens (other than in New York City) and other attention-gathering devices without being relieved of responsibility for the safety of the vehicle or personnel, or responsibility in connection with duties as drivers of Army vehicles.

"(b) Upon approaching a stop sign, red traffic light, or caution sign, stop or slow down, as necessary for safety and then proceed cautiously through areas controlled by such regulatory devices.'



"It's slippery enough to be a dance floor," said the girl. "Only yesterday Miss Terry slipped and sprained her ankle. She'll be out for 3 days. Why don't you call in the

Legge Company? I've heard they make slip-resistant floor Polishes." With the first Legge Safety Polish application, the floors gleamed with a greater lustre than ever but without a trace of slipperiness.

Mission accomplished. Miss Bradshaw returned the dancing costume to her trunk and resumed her secretarial duties amid admiring glances.

The boss was happy, too. He found that, with only normal maintenance, the floors retained both their rich appearance and slip-resistance for months. And, as his Safety record went up, his maintenance costs went down. Because the initial Polishing endured so much longer, he saved 331/3 % on labor and materials.

> Wouldn't you be wise to investigate LEGGE products from the standpoints of Safety and Economy? A trained Safety Engineer will gladly call at your convenience. No charge or obligation.

Valter G. LEGGE Company, Inc.

Dept. N-12, 101 Park Ave., New York 17, N. Y. Branch offices in principal cities. In Toronto-J. W. Turner Co.

Walter G. Legge Company, 101 Park Ave., New York 17, Have a Legge Floor Coi floors. No obligation, of Send your Free booklet, Floor Safety— the Hard	N. Y. isultant cal course. "Mr. High			TO TO ST	G G E F
Name			- 1	9	2
Firm			 - 1	LEGGE	SYSTEM
Street			 		tenance
City	Zone	Sto		-	



Slips are costly... BUT FERROX ISN'

A few dollars worth of Ferrox underfoot would have prevented this painful, costly accident. Ferrox makes it easy-and inexpensive-to have safe footing on all walking surfaces, wet or dry. It can be troweled over wood concrete or metal . . sticks tight . . . resists oil, chemicals and weather conditions. One gallon covers approximately 40 square feet applied in two thin (1/32") coats.

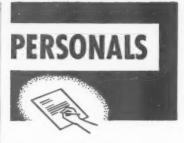


Check Your Safety Requirements Now

Why not take a walk through your plant right now (and be careful!) to see how many places where Ferrox surfacing would reduce your accident risk. Machine areas, especially, need Ferrox for safe footing. So do stairways, walkways and ramps, shower stalls, washrooms, loading platforms and numerous other locations. Remember—slips are costly, but Ferrox isn't. Write to Dept. 21 for Ferrox bulletin.

AMERICAN FERROX

AMERICAN ABRASIVE METALS CO. - IRVINGTON II, N. J.



Cox Heads ASSE

WILLIAM N. Cox, JR., professor and acting director, School of Industrial Engineering, Georgia Institute of Technology, Atlanta, was elected president of the American Society of Safety Engineers at the Society's annual meeting held in Chicago during the week of the 42nd National Safety Congress.



William N. Cox

Other officers elected were: First Vice-President: Edward B. Landry, safety director, U. S. Post Office Department, Washington, D. C.

Second Vice-President: H. B. Duffus, administrator, Accident Prevention, Westinghouse Electric Corp., Pittsburgh, Pa.

Secretary and Managing Director: Jasper B. Johnson, ASSE, Chicago.

Treasurer: George F. Nuernberger, safety engineer, A. B. Dick Company, Chicago.

DR. HUGH E. CHAVERN has been appointed medical director of Dravo Corp. The appointment is in conjunction with an expanded medical program. Improved facilities are being provided in the main plant dispensary on Neville Island. New equipment is being installed to aid pre-employment medical examinations as well as annual health examinations for employees.

Dr. Chavern has been with Dravo since 1952. He received his medical degree at the University of Pittsburgh, and the degree of Master of Public Health in Occupational Health at Pitt's Post Graduate School. Dr. J. E. Mc-CLENAHAN will continue as chief surgeon for the company.

ERNEST S. LOMAX has been named an assistant to Charles L. Jones, safety engineer for Hercules Powder Company. Prior to his appointment he had been main-

tenance engineer at Allegany Ballistics Laboratory operated by Hercules near Cumberland, Md.

A native of Newark, Delaware and a graduate of the University of Delaware, Mr. Lomax joined Hercules as a draftsman in 1939. He served at Hercules plants in Brunswick, Ga., and Hattiesburg, Miss., before entering the army in September 1941. Leaving the army as a captain in February 1946 he returned to the Home Office Engineering Department and in 1948 went to the Allegany Ballistics Laboratory as research assistant.

Obituary

G. H. RUPP

GEORGE HERBERT RUPP, manager of the Mining Department of The Colorado Fuel and Iron Corporation, died October 11, in Pueblo, Colo.

As Manager of CF&I's Mining Department, Mr. Rupp supervised exploration programs for coal, limestone, iron ore and other minerals, directed the development, opening, and operation of iron ore mines, limestone and other quarries, and the development and opening of the new Allen coal mine in southern Colorado. He was an exponent of modern mining techniques, and during his years of supervisory service CF&I mines won many national safety awards.

He was active in civic and technical organizations and was a member of various Masonic bodies. In addition to being a member of the American Institute of Mining and Metallurgical Engineers, Mr. Rupp held membership in the Rocky Mountain Coal Mining Institute, The Colorado Mining Association, and the Alumni Association of the Michigan College of Mining and Technology.

... Exclusive ... Industrial Weight HOOD NEOPRENE COATED GAUNTLETS



HOOD RUBBER CO., MASSACHUSETTS

A division of the B. F. Goodrich Company

with neoprene coate knit wrister.

the boy and the Star

He is old enough now to know that the ornament on the tree is more than simply a star... to understand the deeper meaning of Christmastime.

Now he knows that it is love that has been shining on the tree year after year, the love that has wrapped and held him . . . that has given him food and warmth and laughter and the promise of joy to come.

Life's great reward is the privilege of giving security to those we love—yet it is possible only in a country like ours.

And, think: When you make your home secure you are also helping make America secure. For the strength of America grows as the number of its secure homes increases.





A SPECIAL "NOW-OR-NEVER" OFFER

SAFETY INCENTIVE AWARD PENS

SHEAFFER

Fineline

BALLPOINT PENS

By special arrangement, a limited quantity of worldfamous Sheaffer Finelines are available at greatly reduced prices to National Safety Council members only—for use in their safety programs.

* * * *

The Sheaffer Fineline is a quality product. The gold cap and clip and polished green barrel give it distinctive appearance. The writing qualities are tops. It holds much more ink than ordinary ballpoints — and refill cartridges are available from every Sheaffer dealer in the country. It is really everything you could ask for in a pen.

Order a stock of these Sheaffer Finelines now while we have them—imprinted with your safety message. You can award them with pride. Your workers will carry them proudly.

DETAILS ON OTHER SIDE



Fineline exclusive feeding

eliminates skipping, spurting.

Sheaffer Dealers

cartridges.

3 to 5 times more ink capacity

than average replaceable

NEVER LET UNUSUAL SAFETY PERFORMANCE GO UNREWARDED...

GIVE

ACHIEVEMENT AWARDS

- For no lost-time accidents
- —For reduction in frequency rates
- For improvement in severity rates

ATTENDANCE AWARDS

- For attendance at a series of afterworking hours employee Safety Meetings
- For door prizes or banquet souvenirs. on special occasions

PARTICIPATION AWARDS

AS INDIVIDUAL SAFETY AWARDS

- For presentation to each worker who turns in a safety suggestion
- -For safety contest prizes

SAFETY COMMITTEEMEN - EXECUTIVES

- For goodwill advertising
- For any unusual safety performance

Imprinting

Your company name, slogan or other message will be imprinted on all pens at no extra cost. The simple limitations on this offer are:

- (1) Message limited to 2 lines of 30 characters each.
- (2) Imprinting will be in gold color only.
- (3) A \$2.00 charge is made for custom imprinting on orders of less than 100 pens. No charge for 100 or more.
- (4) Include the Green Cross emblem with your imprint at no extra cost.

STOCK PENS—bearing the Green Cross emblem and the slogan "It's Not The Right Way if it isn't SAFE," can be shipped immediately from stock.



1-9	10-99	100—999	1000 or more	
Each \$1.00*	.78*	.75	.73	

^{*}With stock slogan. \$2.00 service charge for custom imprints on orders for less than 100 pens.

Conditions and Terms

Cancellation cannot be accepted after the date of mailing acknowledgement of order, excepting by mutual gareement.

Delivery of personalized imprinted pens can be made in from two to three

weeks, directly from the factory under NSC label.

NATIONAL

425 North Michigan Avenue • Chicago 11, Illinois





Of Course, You Visited Safety's Super Market

If the product or service was used in the promotion of accident prevention, fire protection, plant housekeeping, occupational hygiene, personal cleanliness or first aid, chances are it was on display at the 1954 Safety Exposition. Here several thousand delegates and visitors at the 42nd National Safety Congress had the opportunity of meeting 187 exhibitors and learning ways of making their plant and commu-

nity safety programs more effective.

Months before the Congress, every foot of exhibit space had been sold. The 187 exhibits filled the Exhibit Hall and Annex on the lower lobby level, the mezzanine floor, and the corridor adjoining the meeting rooms on the third floor.

Comparing present-day exhibits with those of a few years ago, there has been a noticeable im-



provement in the displays as well as in the products. Exhibits are more colorful and devices which use motion are being used effectively to attract attention.

People seem to enjoy taking tests. The sight screening devices in the booths of the optical companies were busy all the time. Others took advantage of the opportunity to have their hearing checked and many others visited an insurance company exhibit to see how they rated as drivers under simulated traffic conditions.

Centrally located on the lower lobby level was the National Safety Council's elaborate display of services and publications covering all branches of safety. The library



Sunday morning found many exhibitors busy setting up their displays.



A delegate learns what it feels like to be resuscitated.

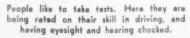


service desk was kept busy answering inquiries and many delegates also visited the library at Council headquarters.

Safety and training aids and literature available from publishers or through insurance and engineering services have become more numerous and greatly improved in quality. The growing use of awards and other incentives is reflected in the exhibits.

Personal protective equipment still occupies a prominent position in the safety field. In spite of progress in controlling hazards at the source, many operations would still be impossible without personal equipment. Many items are indispensable emergency equipment or needed for brief, infrequent exposures, and often for added protection. Civilian defense measures have also focused attention on the need for such protection.

Keeping the plant clean and sanitary has always been a basic part of the industrial safety program and products for this purpose were well represented in the





form of floor machines, vacuum cleaners, oil absorbents, detergents, germicides and other products which aid in providing a healthful working environment.

Personal cleanliness plays an important part in the prevention of skin infections and the maintenance of employee health generally. Washroom equipment, skin cleansers, protective applications, and products for the control of fungous infection are among the products featured in this group.

Handling material, one of industry's serious problems from the standpoint of both safety and operation, has been aided by the development of mechanical equipment and improvement in loadbearing parts, such as wire rope, chains, slings and accessories, which were represented in the exhibits. The plant safety department's interest in handling material was shown by the three sessions on this subject in the Congress program.



Preventing falls of persons was the purpose of many products. Floor materials, coatings and finishes with high resistance to slipping were shown. There were also several types of footwear with soles and heels of slip-resisting materials.

Since many industrial operations involve getting from one level to another, good ladders and scaffolding are essential. These are shown in many types of construction, both wood and metal.

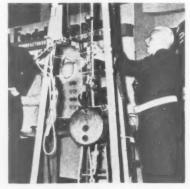
Also important in working at high levels are safety belts and harness. Additional safety for the worker is provided by a shock absorber which was demonstrated at one exhibit.

Machine guards of several types, principally for power presses and circular saws, were shown.

First aid and medical supplies, so important in preventing minor injuries from becoming serious, were displayed in many attractive exhibits. In this field, the trend has been toward unit dressings which keep the supplies in sterile



"Raggedy Ann" was the patient on this teeter-totter resuscitator.



Use of shock absorber on life line is demonstrated by C. W. Rose.



"So Long! See you again next year."

individual containers until used. These have proved particularly valuable for small plants and those with scattered operations, as well as for emergency use in rescue work when disaster strikes.

Protecting life and property against fire, weather and other types of disasters has brought about increased interest in the organization and techniques and equipment for fire-fighting and rescue work. Exhibits featured equipment for fire detection and extinguishment and for the handling and storage of flammable materials.

In recent years there has been a growing appreciation of the value of mechanical devices for resuscitation to supplement manual methods and newest models of these were shown.

Warning and instruction signs, in standard designs and colors, for various types of use, were eye catching.

Exposition Exhibitors

Acme Protection Equipment Co.
Admatic Corp.
Advance Glove Manufacturing Co.
Aetna Casualty & Surety Co.
Alan Wood Steel Co.
American Abrasive Metals Co.
American Allsafe Co., Inc.
American Chain & Cable Co., Inc.
American Chain & Cable Co., Inc.
American Optical Co.
Ampco Metal, Inc.
Ansul Chemical Co.
Arcadia Manufacturing Co.
Armory Street Safety Shoes, Div. of
Commonwealth Shoe & Leather Co.

Award Incentives, Inc. Ayerst Laboratories Bashlin, W. M., Co. Bausch & Lomb Optical Co. Beryllium Corp. Best, Alfred M., Co., Inc. Bethlehem Steel Co.

-To page 76



Time out for refreshments.



Organic Solvents

(From page 25)

poisoning, whether applied to the skin, the eyes, or inhaled to irritate the respiratory tract.

Narcotics act principally as anesthetics without serious toxic effects. They depress the central nervous system, slowing the bodily functions, sometimes to the point of death. The action is largely physical and reversible.

True poisons, on the other hand, act to cause tissue damage of a specific nature. Organic injury of the principal types shown are caused by benzene, carbon disulfide and tetrachloroethane.

In considering solvent vapor intoxication, we are primarily concerned with narcotics and poisons.

Solvent vapors, when inhaled, pass into the circulation and are distributed to the heart and central nervous system with a rapidity second only to injection into the veins. For this reason the effect of inhalation can be more serious than swallowing because of the speed of absorption.

Exposures to solvent vapors likewise differ. Acute poisoning may result from a single exposure to high concentrations of solvent vapor, or chronic and cumulative poisoning may result from continued or frequently repeated exposure to moderately low vapor concentration.

The first important point to be considered in assessing the toxic hazard of any solvent operation is this: What type of health hazard is created? See Table III.

The first four solvents shown present serious hazards because

their effect is primarily that of a systemic poison, not an asphyxiant or a simple narcotic. Continued exposure to low concentrations of solvent vapor may cause serious or permanent organic damage. Equally important, a single exposure to a moderately high vapor concentration may produce intoxication or narcosis from which the workman apparently quickly recovers, but the damage is done, and death may follow after a period of days.

Carbon tetrachloride is probably one of the solvents most widely misused and it is responsible for far more than its proportionate share of industrial deaths and disability.

Alcohol intensifies this problem. Workmen who drink are known to be susceptible to chlorinated solvents to a much greater degree than abstainers.

Solvents in the second group are primarily anesthetic in action and systemic toxic effects are slight and transient. The vapors are rapidly eliminated from the body and tissue damage does not usually result. Inhalation of these vapors can cause dizziness, nausea and eventually unconsciousness, but after the compound is eliminated from the body the effects disappear, usually leaving only headache or an uneasy stomach. Cases in point are ethyl ether and ethyl alcohol, both of which cause unconsciousness, but are dissipated, leaving only the familiar hangover.

Practically all organic solvents that are soluble in fats are capable of producing some degree of anesthesia. The greater the fat solubility in comparison with the water solubility, the more potent the narcotic compounds. Thus, alcohols are weak anesthetics while ether or the hydrocarbons are comparatively strong.

Anesthetic power should not be mistakenly confused with toxicity. For example, trichloroethylene is considerably more narcotic than carbon tetrachloride, but because carbon tetrachloride is a liver and kidney poison it constitutes a serious and often fatal toxic hazard. Methanol is one of the weakest anesthetics, but it damages nerve tissues and hence is fairly toxic.

Allowable Concentrations

After the type and seriousness of the hazard involved in solvent use is known, there still remains the second question: How much atmospheric contamination can be safely tolerated?

In industrial hygiene there is a Sacred Cow, known as Maximum Allowable Concentration. This is the concentration of a contaminant in the air which will not cause injury to an individual exposed continuously during the working day for indefinite periods of time. This MAC is one of the most useful concepts and undoubtedly one of the most misleading. It is highly erroneous to reason that solvents having the same MAC are equally toxic unless the conditions of exposure are precisely those set forth in the definition of MAC: continuous exposure, eight hours a day, for indefinite periods.

The raw figures of MAC can be misleading unless transformed into values relating to practical working conditions. Two useful expressions have been developed for this purpose. See Table IV.

The liquid volume of solvent, which, if volatized and distributed

TABLE III

Dangerous Solvents				
Carbon tetrachloride	Liver, kidney damage			
Chloroethyl	Lung, liver damage			
Tetrachloro- ethane	Liver damage			

Hazardous Solvents

Blood changes

Methylene chloride	Anaesthetic	
Ethyl ether	Anaesthetic	
Perchloroethylene	Anaesthetic	
Ethyl alcohol	Anaesthetic	(mild)
Stoddard solvent	Anaesthetic	(mild)

TABLE IV

Volume ml. =
$$\frac{\text{MAC x mol. wt.}}{0.86 \frac{\text{cu.ft.}}{\text{g. mol.}} \text{ x sp. gr. x 1000}}$$

Benzene

equally, would give a concentration in 1000 cu. ft. equal to the MAC is calculated by the use of the first expression.

Since solvent consumption is usually measured in terms of liquid volume, this value gives a more tangible estimate of the volume of solvent permissible in a given space assuming complete mixing of the vapor and the air.

An even more useful concept is the ventilation rate required to keep the solvent vapor concentration below the allowable limit. This value provides a rough index of the ease with which vapors from various solvents can be controlled by general ventilation.

TABLE V
Ventilation Rate Values for Industrial Solvents

Solvent	Vent. Rate		MAC	
	cfm/gal/hr.	In PP	M	
Carbon Tetrachlori	de 11,100	50		
Methylene Chlorid	le 1,700	500		
Perchloroethylene	2,600	200		
Chloroethyl ether	30,500	15		
Tetrachloroethane	102,000	5		
Carbon disulfide	44,500	20		
Benzene	15,000	40		
Ethyl alcohol	900	1,000		
Stoddard Solvent	500	600		

The table shows representative solvents together with the MAC translated into ventilation rate in cfm per gallon of solvent vaporized per hour.

General ventilation is usually adequate to take care of all but the most toxic solvent vapors. The average plant provides 6 to 10 air changes per hour while aircraft hangers and railroad shops usually are ventilated at about double this rate. A more accurate estimate of the ventilation is based on floor area. Comfortable work areas are ventilated at from 1.5 to 2.0 cfm per square foot of floor space.

In an average workroom 60 x 40 x 10 ft. the ventilation rate should be 3,600 cfm or about 9 air changes per hour. Based on this rate, about 4 gal/hr of alcohol could be safely evaporated into the air, or 2.25 gal. of methylene chloride, but only .06 gal. carbon disulfide could be safely used.

All of these considerations apply to continuous exposures to relatively low solvent vapor con-



centrations. In laboratories and in chemical plants however, the most serious exposures to solvent vapor occur in small, poorly ventilated spaces. It is impossible to use the MAC of a solvent as a guide in assessing the degree of hazard resulting from a single relatively brief exposure to high concentrations of solvent vapor. The toxic dangers in these cases must be evaluated on the basis of either animal experimentation or past experience with industrial exposures.

Several excellent books on industrial toxicology will provide the necessary information for estimating the seriousness of these acute exposures. It should be considered a serious supervisory failure if a workman or laboratory assistant is allowed to use solvents in close quarters without providing adequate, special ventilation.

In conclusion, if anyone under your jurisdiction uses volatile organic solvents, be sure all the factors are known concerning safe uses of these solvents. Be familiar with all values affecting flammability and explosion hazard and consider the toxic hazards as they actually exist in the operation in question. When in doubt about toxic vapors, analyze. Do not lean too heavily upon the fragile crutch of the Maximum Allowable Concentration.



Two Helmets in Popular Narrow-Front Style Now Made in Modern Fiber-Glass Plastic

For the first time, Jackson offers two welding helmets in the popular shape favored by many weldors to make work easier in the tight spots. Type H-3, with fixed front, and H-4, with lift front are otherwise similar to the other Jackson Helmets, but somewhat lighter in weight.

Helmets H-1 and H-2 have long since proved the economy of long-lived fiber-glass over vulcanized fiber. More resistant to heat and moisture, they hold their shape, withstand weld spatter and high voltage, are strong, smooth, easy to clean, and attractive in appearance.

Headgears are of smooth plastic, easy to clean, with inexpensive, snap-on, cork-padded sweatband. Calibrated to hat sizes in $\frac{1}{2}$ -inch steps, they are quickly fitted. Friction pivots are adjustable by hand while helmet is worn. Helmets can thus be made to float down without jolts, and stay in any desired position.





LIFT-FRONT HELMET type H-4 permits work inspection without raising the entire helmet. The lens holder is of high-impact thermosetting plastic with hinged door held up or down by cail springs. Filter lens is protected by a cover glass, and a second clear glass stays in place when front is up to protect the eyes from flying particles.



JACKSON PRODUCTS, INC.

N A R R E N · M I C H I G A N Sold World Wide . . . through Distributors and Dealers

Industrial Health

-From page 51

appointed by the department manager, together with the managers of the Health and Safety Section, the Industrial Medicine Subsection and the Chief of the Public Health Unit organizes and directs the activities of the health education program. The health educator acts as a permanent member of this committee. Because the Health Activities Committee is widely representative of all departments in the plant, it has been possible for the members to readily hear of health or medical problems, either real or imaginary, which have arisen among the employees and either clear them up by committee discussion or set them up for discussion as the monthly health topic.

A monthly health bulletin is issued on a topic chosen by the committee on the basis of the needs and interests of the employees and of situations of seasonal or topical importance.

The monthly health bulletin is carefully laid out and written so that it will be simple enough to be understood by those of limited education and will be of sufficient interest to hold the attention of the many scientists among the personnel. An effort is made to have an attractive layout and printing job in every month.

Regular monthly health and safety meetings are held for each unit in the plant. A leader is chosen for each unit meeting who discusses the monthly health topic and then distributes the health bulletin.

Speakers from the medical staff or from the public health profession are available and are frequently invited to address these unit meetings. Films and other visual educational material are also used regularly.

The company's health activities and medical department are described and explained to the prospective employees during their indoctrination and orientation program and at this time a booklet describing the medical program is given to each employee. This is the first real opportunity for health education

and it is stressed.

Industrial nurses throughout the medical department are expected to be active in the health education program as they see the employees at times when they are peculiarly receptive to this type of advice and indoctrination. This is particularly true because a company regulation requires that workers who have been ill report to the first aid station before returning to work.

Emotional Factors

Emotional Aspects of Respiratory Disorders Among Coal Miners, by W. Donald Ross, M.D., Lee H. Miller, M.D., H. Halbert Leet, M.D., and Frank Princi, M.D. The Journal of the American Medical Association, 156: 484-487; October 2, 1954.

This report is based on studies of 40 patients referred for chest complaints with shortness of breath, cough, and chest pain. Each patient was studied over a period of three to six weeks and 30 of the 40 were examined and interviewed by the same psychiatrist.

The investigation included case history, physical examination, urinalysis, complete blood cell count and hematocrit, determinations of sediment rate, serologic tests for syphilis, blood non-protein nitrogen, blood sugar, sputum examination, chest X-rays (front to back with chest inflated and deflated and side views), fluoroscope examination of the chest, electrocardiogram, measurement of circulation time of the blood, heart examination by a specialist, and determination of lung volume and maximum breathing capacity, measurement of breathing patterns and determination of arterial blood gases. Tolerance for exercise for each patient was studied by direct observation while he was walking up flights of stairs and by laboratory measurements before and after exercise.

Emotional factors appeared to the technical staff to be of some importance and instead of having psychiatric consultation only when the symptoms could not be explained by physical findings, each of these 40 were interviewed by a psychiatrist as one of the group of physicians who helped in the complete study. Among these patients, one-third were considered to have a psychoneurosis of some type as their most significant medical diagnosis. An additional seven per cent had another non-respiratory medical complaint as their most significant medical diagnosis; in other words, 40 per cent had other than respiratory diseases as their most significant disabling condition.

This should not be taken to indicate that the symptoms in the individuals with various types of psychoneuroses were entirely imaginary. Many of them had breathing disorders which have been found in the past to follow emotional tensions of various types. Only one-eighth of the patients were considered to have physical disability with no psychiatric troubles and over one-third had psychiatric difficulties with no real physical disability.

The psychiatric difficulties of



these miners generally started with the neglect of their education to start work in the mines in their teens to contribute to the support of other members of the family and continued with the necessity for working hard in the face of the hazards to life and limb which they had seen and narrow escapes of their own or in rescuing other miners or removing their bodies from results of mine accidents.

Many of them had continued to work in the mine until they were examined by a physician and were told they were incapacitated. Having once stopped work, the depression which this precipitated had naturally added to their disability and the difficulties of living with lost income added to their depression.

Many of them would have been able to work either at mining or at some non-mining occupation if they had been encouraged to do so at an early part of their illness but when incapacitated for mining, they felt they were incapacitated for any type of labor and rapidly lost their initiative for any type of employment.

Similar results have been found recently in a number of other studies of the incapacities of middle-aged and older coal miners. The important thing about these is that if the nature of the conditions were recognized by physicians early in the disorder, it could be treated before a return to mining was impossible. If these individuals could not return to mining, they could almost certainly find some other useful work which they would be able to do without hazard to themselves or others.

Illinois Program

-From page 35

transportation are not as great a problem as in Chicago, the evening courses might be preferable.

Instructors for the initial three courses were volunteers from the sponsoring organizations. Classes were kept small to permit class participation and discussion. A subcommittee headed by R. E. Dalstrom, of Lumbermens Mutual Casualty Company, agreed that the "text" should be the Council's small Handbook for Industrial Accident Prevention, supplemented by sample materials suitable for supervisors in small and medium sized firms. The local YMCA generously provided meeting room facilities and, in the one case, the YMCA Industrial Management Club co-sponsored a kick-off conference and training course.

The courses were also well attended—and by men from small firms. For example, at the first course 24 of the 32 "students" were from firms with fewer than 100 employees. Here then is a pattern which can be readily adapted to other communities in Illinois and other states.

E. Russell Bartley, of the Illinois Manufacturers Association, served as coordinator of the entire program and provided printed publicity material and bro-



Write Today for Free Brochure S-4, "Face and Eye Shields"

Standard Safety Equipment Co.

232 West Ontario Street Chicago 10, Illinois

Newark 4, New J

855 East 152nd Street Cleveland 10, Ohio

2952 Crenshaw Boulevard Los Angeles 16, Calif.







the design does it

IT COSTS LESS TO MAINTAIN

StaSafe's advanced face shield design and mass production techniques enable us to offer replacement fronts at unusually low prices without any compromise in safety or quality. Low replacement front costs are a big step toward more effective use of your safety dollar.

STAS/AFE SHIELDS

simplified replacement

With StaSafe shields it takes only 20 seconds to raise the spring retaining clips . . . slide in a new front . . . and drop the clips to securely lock the front in place. Time savings are another big factor in every safety program.

longer shield life

Field tested and proved on industry's most demanding jobs, StaSafe shields have earned a reputation for withstanding rugged use and hard impact. Long service plus low cost replacement fronts spell effective, economical safety.

chures which pointed up the need for accident prevention, and were were distributed to those attending the kick-off meetings and to thousands of other interested firms and high hazard insurance risks. The non-profit enrollment fee of \$6 covered only the out-of-pocket expense of a course luncheon, several items of text material and partially defrayed the cost of printed brochures and programs.

The Results?

First, it should be made clear that this entire project had one primary purpose—to reach and interest more firms with the safety message. None of the sponsoring organizations made any attempt to sell any service or memberships although it was only natural that a number of inquiries led to such arrangements. It is too early to judge long term results. Immediate effects seem to be:

1. The knowledge that influential local groups are genuinely interested in helping stimulate the interest of smaller companies, and to the extent that they will contribute a tremendous amount of effort to cracking this tough problem.

2. Thousands of firms which did not participate in the preliminary meetings and the neighborhood courses, were at least made aware of the program through publicity. Certainly, a great deal of new interest was stirred up by such motivating factors as safety legislation, compensation rates and the relationship between production and accident losses.

3. Most important, the project furnished the cooperating sponsors with valuable information on what works and what doesn't work. We think we are on the right track and hope this establishes a pattern that will help other communities and states to reach small firms without a disproportionate expenditure of time and effort.

The Illinois Occupational Safety Program did prove that with the right type of promotion you could interest more firms in safety; with the right type of program you could offer acceptable help. As Herb Reinhard, chairman of our Small Business and Associations Committee once said in these pages, "Each pebble will create an ever expanding ripple." Our job then, is to set up enough of these neighborhood and local safety groups to stir up a wave of new interest—to reach the several million small firms who can do so much to reduce employee injuries.

Nation's Fire Losses Pass Billion Mark

The NATION'S FIRE LOSSES for the first time in history went over the billion-dollar mark in 1953, the National Fire Protection Association has estimated.

It was also the fifth successive year in which U. S. fire losses have increased, the NFPA reported in its annual classification of the past year's fires and fire losses which appears in the current is-



"FOLD-A-WAY" Aluminum Scaffold, two sections high, speeds work on typical maintenance lob. Inset: New type "built-in" Extension Leg gives safe, positive adjustments without lifting Scaffold. Two quick turns give I" of adjustment.

This Aluminum Scaffold Opens Like a Book

ONE OF THE MOST remarkable scaffolding developments of recent years is the "Fold-A-Way"* Aluminum Scaffold, designed with a folding base section that one man can erect in less than 60 seconds. It is approved by Underwriters' Laboratories, Inc.

"Fold-A-Way" end frames swing open sideways (like the pages of a book) while the 7'-high base unit is in a standing position, making an easily-managed swing of about 90 degrees, while the operator stands inside base area.

Made of 61S-T6 aluminum alloy with 2" O. D. tubes for major members, the "Fold-A-Way" Scaffold features 5" aluminum, rubbertired caster wheels. New Extension Legs permit height adjustments up to 24". Base section dimensions are 4'6" x 6', and height is 7', including casters. Intermediate sections are 6' high, while the half section and folding guard rail section are each 42" high. Write for Bulletin ASF-1.



Sections fold into a compact 61/2" package. Requires no skill or overhead balancing.



End frames swing outward like pages of a book. Entire base section is free standing during erection.



Workman is constantly within the base area of the scaffold. No loose parts.

FOR GREATER SAFETY... EFFICIENCY... ECONOMY



38-21 12th Street, Dept. NSN, Long Island City 1, N. Y.
6931 Stanford Ave., Los Angeles 1, Calif.
Branches in all principal cities

LADDER SCAFFOLDS
2' wide and 4'6" wide
Erected from ladder
frames of three heights,
these wide Aluminum
Ladder Scaffolds are
available in spans of 6 ft.,
8 ft., or 10 ft. Approved
by UL.

sue of the Association's Quarterly Magazine.

The report states that approximately 1,899,400 fires of all types in the United States in 1953, caused a direct loss of \$1,021,720,000—an increase of \$80 million over the 1952 total.

In a further breakdown, NFPA estimated last year's building fires totalled 727,000 and caused \$889,-120,000 damage. An additional 1,172,400 fires not involving build-

ings—aircraft, motor vehicles, forest, ships, rubbish, grass fires, etc.—accounted for an estimated \$132,600,000 loss.

NFPA pointed out that while the number of 1953 building fires represents a 3.4 per cent increase over 1952 figures, the 1953 loss is 12 per cent more than the previous year and one industrial fire accounted for almost one half of this increase.

A tabulation of the nationwide

distribution of fires and losses by occupancy and cause also brought out these changes in 1953 experience as compared with 1952:

There was a 5.8 per cent increase in the number of dwelling fires (420,000 total in 1953); a 25 per cent increase in the number of fires in barns; a 10.5 per cent decrease in the number of warehouse fires; a 6.3 per cent decrease in the number of automobile fires; an 18 per cent decrease in the number of forest fires; and the number of fires caused by defective or overheated chimneys and flues decreased 22 per cent.

For Safety For Powerful Action



Low Toxicity Fire Hazards Minimized

Brulin's Solvent Degreaser gives a fast, powerful degreasing action with much less danger than with more toxic chlorinated solvents. The maximum permissible concentration of the vapor in air is at least 8 times that of carbon tetrachloride. Solvent Degreaser has the additional safety advantage of a high flash point. Solvent Degreaser is fast and positive in its cleaning action. Yet it will not harm rubber insulation, craze plastic materials, nor pit or corrode light metals. Brulin's Solvent Degreaser has many widespread uses, and, because of its ability to dry film free, it is particularly adaptable for the cleaning of electrical motors and equipment.

Here is the answer to the safety man's cleaning solvent problem.



Witte today for more information

BRULIN AND COMPANY, INC.

INDIANAPOLIS 7, INDIANA - 2939-45 COLUMBIA AVENUE OAKLAND 7, CALIFORNIA - 1793 WEST 12TH STREET

Forum to Present Nation's Health Problems

The 1955 National Health Forum, to be held March 23 and 24 at the Hotel Sheraton Astor, New York City, will concern itself with "Forecasting America's Health," according to A. W. Dent, Council president. The 48 national organization members of the Council annually sponsor the Forum which will take on added significance in 1955 as a feature of the Council's 35th Annual Meeting.

Roscoe P. Kandle, M.D., deputy commissioner of the New York City Department of Health and one of the nation's leading authorities on public health, is chairman of the Forum Committee.

Different sessions at the Forum will explore the nation's resources and forces for better health.

"We will try to establish better guidelines along which the many groups interested in health may work effectively together," said Dr. Kandle. "We will check economic trends; try to gauge how atomic developments will affect health; look at current governmental programs, and see how new health programs of labor and management should alter community plans."

The Forum program will offer both speakers and opportunity for general discussion.

It has often been said that many a married couple is like a team of horses—parted by a tongue.

Association Award

-From page 39

safety program to the industry. The association initiated its safety program in 1951. Here is the score:

Year	Injuries	Frequency
1951	920	18.41
1952	576	11.60
1953	555	10.35
1954	350	6.99

(1954 figure projections based on the first eight months' report.)

In a survey conducted by the association, it was determined that the average cost of a lost time injury was \$534. According to our slide rule, the accident bill absorbed by the members was about \$500,000 for 1951. This is \$20 per employee and we haven't mentioned indirect costs! That's a lot of boxes. We found an adding machine and added all the accidents that didn't happen in 1952-54 based on 1951 figures. The answer was 1,279-which saved members \$685,000, or \$9 per employee per year. That's more than enough for a new pair of safety shoes for each employee every year. Still haven't mentioned the indirect costs. Furthermore, the cost of accidents in 1954 dropped to \$7.50 per employee. This is a \$12.50 drop from 1951.

Other associations probably have figures that would show even greater savings to their industry than the one above. What we wanted to get across is the fact that associations which include safety among their services are saving their members a lot of money and the employees of the industry a lot of suffering. In addition, these associations place high priority on the favorable public and employee relations that accompany this activity. In short, it pays!

The real beneficiaries of this accident prevention service are not the associations which have me decorating its walls—but the many workers in the industry who have been spared what was once considered "an accident" and all its unfavorable consequences.

So, it's no wonder men want me. I recognize both achievement and effort. I am a symbol of success. I am an Association Safety Award.

1954 Association Award Winners

Associated General Contractors of America, Inc.

British Columbia Loggers Association

British Columbia Lumber Manufacturers Association Can Manufacturers Institute, Inc. Folding Paper Box Association of America

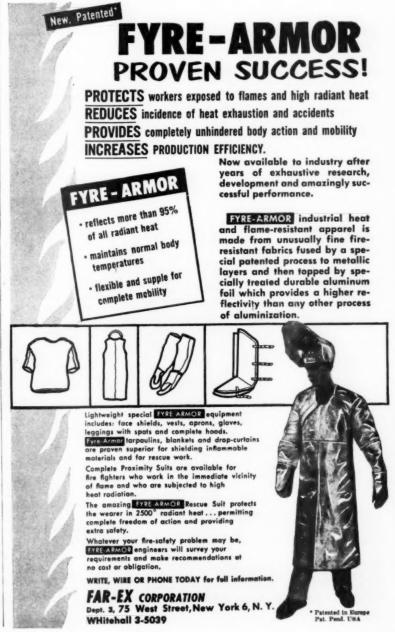
Industrial Accident Prevention Associations (Canada)

Manufacturing Chemists' Association, Inc.

New York Shipping Association

Portland Cement Association

Society of Exploration Geophysicists Steel Founders' Society of America



Safety's Supermarket

-From page 67

Better Light Better Sight Bureau Bil-Jax. Inc. Bone-Dry Shoe Manufacturing Co. Bradley Washfountain Co. Brady, W. H., Co. Breck, John H., Inc. Bristol-Myers Products Divn. Browne, Stewart R., Manufacturing Co.

Brulin & Co., Inc. Buhrke, R. H., Co. Bullard, E. D., Co. Cambridge Rubber Co., Vul-Cork Sole Divn.

Dow-Corning Corp.

Chance, A. B., Co. Charleston Rubber Co. Chemical Specialties, Inc. Chicago Eye Shield Co. Coca-Cola Co. Columbus Glove Manufacturing Co. Columbus McKinnon Chain Corp. C-O-Two Fire Equipment Co. Cunningham, M. E., Co. Davis Emergency Equipment Co., Inc. Detex Watchclock Corp. Diversey Corp. Dockson Corp.

Dunn Products Du Pont, E. I., de Nemours & Co., Inc. E. & J. Manufacturing Co. Eagle-Picher Sales Co. Edmont Manufacturing Co. Elliott Service Co. Embosograf Corp. of America Emerson, J. H., Co. Fairfield Glove Co. Fendall Co. Fine Organics, Inc. Fireye Divn., Electronics Corp. of America Frank Manufacturing Co.

Franklin Research Co. **Frommelt Industries** Gamewell Co. General Detroit Corp. Globe Co. Graton & Knight Co. Gro-Cord Rubber Co. Haws Drinking Faucet Co. Hewson, John, Co. Hild Floor Machine Co. Hillyard Chemical Co. Holland-Racine Shoes, Inc. Hygiene Research, Inc. Hy-Test Safety Shoes Divn.,

International Shoe Co. Industrial Gloves Co. **Institute of Industrial Launderers**

Industrial Products Co. Insto-Gas Corp. Interstate Rubber Products Corp. Iron Age Safety Shoes, H. Childs & Co., Inc. Jackson Products. Inc. Jomac, Inc. Jones & Co. Junkin Safety Appliance Co., Inc. Justrite Mfg. Co. Karel First Aid Supply Co. Kelley-Mahorney Co. Keystone View Co. Kidde, Walter, & Co., Inc. Kimball Safety Products Co. Klein, Mathias, & Sons Kunz, J., Glove Co. Legge, Walter G., Co., Inc. Lehigh Safety Shoe Co. Lightfoot Schultz Co. Littell, F. J., Machine Co. Louisville Ladder Co. Lowery Brothers Luther Manufacturing Co., Inc. Maico Co., Inc. Marsh & McLennan, Inc. Martindale Electric Co. Masury-Young Co. McAn, Thom, Safety Shoe Divn.,



200 William Street, New York 38, N. Y.

Eligibility of all employees for personalized awards created by Award Incentives, Inc., inspires greater safety practices in each worker.

Melville Shoe Corp.

McDermott, Julian A., Corp.

Illustrated are just a few of the many Award Incentive personalized awards used by BARRETT. a division of Allied Chemical and Dye Corp. if you are interested in reducing lost time due to accidents you must eliminate avoidable accidents. AWARD INCENTIVES' tested SAFTI-CENTIVE PROGRAMS is your answer.

We can tailor a SAFTI-CENTIVE PROGRAM for you. Designs submitted without obligation.

Send for catalog of standard SAFETY awards.

Over 20 years of service to Safety Engineers.

McDonald, B. F., Co. McJohn Corp. Medford Manufacturing Co. Medical Supply Co. Melflex Products Co., Inc. Metal Arts Co., Inc. Metropolitan Life Insurance Co. Micro-Switch Divn. of Minneapolis-Honeywell Co. Milburn Co.

Miller Equipment Co., Inc. Mine Safety Appliances Co. National Mine Service Co. **National Safety Council** National Society for the Prevention of Blindness, Inc.

Newman Manufacturing & Sales Co.

Nichols Engineering Co. Occupational Hazards, Inc. Oil-Dri Corp. of America Onox. Inc. Osborn Manufacturing Corp. Pac-Kit Co. Packwood, G. H., Manufacturing Co. Patent Scaffolding Co., Inc. Pennsylvania Optical Co. Permamix Corp. Petersen Engineering Co. Pioneer Rubber Co.

Porto-Clinic Instruments, Inc. Positive Safety Manufacturing Co. Powder Actuated Tool Manufacturers' Institute Prairie State Products Co. Protectoseal Co. Pulmosan Safety Equipment Corp. Pyrene Manufacturing Co. Racine Glove Co., Inc. Radiator Specialty Co. Randolph Laboratories, Inc. Reece Wooden Sole Shoe Co. Robbins Instrument Corp. Rockwood Sprinkler Co. Roebling's, John A., Sons Corp. Rose Manufacturing Co. Safety Box Toe Co. Safety Clothing & Equipment Co. Safety First Products Corp. Safety First Shoe Co. Safety Tower Ladder Co. Salisbury, W. H., & Co. Sani-Mist, Inc. Sawyer, H. M., & Son Co. Schrader's, A., Son Scientific Industrial Supply Co. Scott Aviation Corp. Sellstrom Manufacturing Co. Speedi-Dri Corp.

Standard Safety Equipment Co. Steel Scaffolding Co., Inc. Stepan Chemical Co. Stephenson Corp. Stonehouse Signs, Inc. Stop-Fire, Inc. Surety Rubber Co. Surty Manufacturing Co., Inc. Swivelier Co., Inc. Taylor, S. G., Chain Co. Timmins Splint Co. Trinal, Inc. U-C Lite Manufacturing Co. Union Wire Rope Corp. United States Safety Service Co. Wagner Sign Service, Inc. Wash-Rite Co., Inc. Watchemoket Optical Co., Inc. Waverly Petroleum Products Co. Welsh Manufacturing Co. West Disinfecting Co. Wheeler Protective Apparel, Inc. Wilkins Co., Inc. Williams Jewelry & Manufacturing Co. Willson Products, Inc. Winko-Matic Signal Co. Wolverine Shoe & Tanning Corp. Woodbridge Ornamental Iron Co. Wyandotte Chemicals Corp.



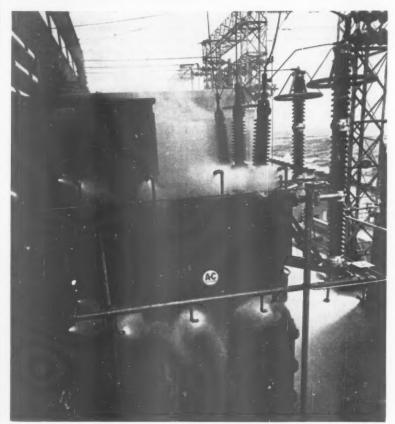
on his CHICAGO Watchclock make their rounds.

In the morning, there is a permanent dial-record of exactly where the watchman was during each hour...in the silence of the night.





Fog System Guards Power Flow



More than 2200 gallons of water per minute shower from 90 nozzles in a test operation to check the efficiency of this water fog system. This modern fire protection system guards more than a half-million dollars worth of transmission equipment to ensure a continuing flow of power from the Eastlake power plant of The Cleveland Electric Illuminating Company.

Center foreground is the main transformer; right, the end of a bank of oil circuit breakers; and, out of the picture but behind the main transformer are two station transformers. To the right is Lake Erie. Transformers and circuit breakers contain more than 14,000 gallons of combustible oil. Electrical transformer group feeds power from one of the 140,000 KW turbogenerator units.

When completed the plant will have a capacity of more than 1,000,000 KW, constructed at a

cost in excess of \$125,000,000.

Pictured is unit number three of three identical water fog systems designed by the Sprinkler Division of Blaw-Knox Company, Pittsburgh, for the Eastlake plant. All piping was prefabricated in Pittsburgh and shipped in sections to Cleveland. After fabrication it was galvanized to prevent corrosion.

Water is released by any one of a series of rate of rise heat actuated devices which electrically open the deluge valve when the temperature rise is from 15 to 20 F per minute. The system can be operated by switches in the turbine room, which is adjacent to the transformer deck.

The installation is surrounded by Lake Erie. Water from the lake is used in the fog system and is drawn from the station water lines in which pressure is normally maintained at 175 pounds per square inch.

How Accidents Occur In New York Homes

SLIPPING in the bath, tripping over toys and other objects, and stubbing unshod toes are among the most common accident hazards in New York City homes, the Greater New York Safety Council reports on the basis of a spot check of 590,000 homes.

The report, based on an analysis of returns of last year's home safety inspection conducted by school children and their parents, was made public as police began distribution to all public elementary and high schools and Catholic schools of home safety checklists to be used in the 1954 inspections. Teachers will give the checklists to pupils, who will take them home and join their parents in searching out and eliminating accident "booby traps."

This year's home safety inspection, for which 1,095,000 checklists (41,000 of them in Spanish) have been prepared and printed by the Greater New York Safety Council, is the eleventh annual. For the last six years the Council has been receiving from the schools summaries of returned questionnaires, after schools have completed their use of them for classroom discussions and community safety projects, and analyzed the returns. Of 20 questions on last year's checklist, the number of adverse answers to the following ten showed them to be in most common accident hazards. in this order:

Is there a non-slip mat or heavy towel in the bathtub or shower to avoid falls?

Do you put away all your clothes. toys and hobby materials as soon as you are through using them?

Do you wear slippers or shoes at all times when walking in the house?

Do you sit properly on chairs instead of tilting them back?

Do you have pads or non-slip backing under small rugs and mats to prevent falls?

Do you keep things out of your mouth which do not belong therelike pins, tacks, money, pencils?

Is the window kept open at least two inches while any gas appliance is in use?

Do you always use a strong steady step stool or ladder when trying to reach high places?

Is there a light of some kind near the bed so you need not walk and stumble in the dark?

When you must spot-clean clothing and other articles, do you use only non-flammable cleaners which do not explode or burn?

Mrs. Marjorie B. May, the Council's director of home safety, said the incidence of adverse answers varies from year to year among the twenty questions but in general the same hazards are near the top of the list. The three most commonly neglected hazards reported in the 1953 inspection have been among the top ten

every year since the tabulation of replies began.

Although the wording of the questionnaire is changed and the order of questions shifts from year to year, the same hazards are noted repeatedly. The ten questions listed above as having brought, in order, the largest number of no responses had appeared in the 1953 checklist as, respectively, Question 6, 18, 9, 20, 12, 17, 2, 14, 10 and 4.



Don't wait for disaster to strike. Today write for free folder.



DETEX WATCHCLOCK CORPORATION Dept. N-12 76 VARICE STREET, NEW YORK 13, N.Y.

PLASTIHIDE means hand PROTECT

from ACIDS, ABRASIVES, ALKALIS, and SOLVENTS

Plastihide Gloves are "Job-designed" for long wear, safety, flexibility and comfort. Each glove made from the finest material GUARANTEED against snag, tear, crack or peal. Glove fingers individually moulded to natural curve of hand insuring finger mobility. Featuring complete lines, sizes and styles, the American Rubberizing Company also maintains a technical department capable of solving your particular glove problems.



Jobbers and Agents Wanted Send for full information



AMERICAN RUBBERIZING COMPANY 615 ELEVENTH AVE. SO., MINNEAPOLIS 4, MINN

Conduct Course in Plant Truck Operation



Rear Admiral F. L. Hetter, Commanding Officer of the Naval Aviation Supply Depot,
Philadelphia, discusses a fork truck safety feature with John T. McCarley, assistant general
manager of The Yale & Towne Manufacturing Company (seated on truck), and Walter
W. Matthews, managing director of the Philadelphia Safety Council.

Improvement in the safety and efficiency of industrial truck operation are the objectives of a course being conducted for the second year by the Philadelphia Safety Council of the Chamber of Commerce of Greater Philadelphia. Consisting of six two-hour sessions, the course is being held at the Naval Aviation Supply Depot and is under the direction of Walter W. Matthews, managing director of the Philadelphia Safety Council.

With increased country-wide emphasis being placed on the importance of the safe operation of automobiles on roads and highways, the Philadelphia Safety Council felt that it was logical that proper attention be given to safety on industrial highways located in plants and warehouses where traffic consists of industrial lift trucks, tractors and other materials handling equipment.

Students for the course include persons responsible for the flow of materials through their plants and include safety engineers, materials handling engineers, supervisors and key operators. Instruction consists of classroom work, films, demonstrations and actual operation of the various pieces of equipment by students.

Cooperating with the Philadelphia Safety Council are the Philadelphia Naval Aviation Supply Depot which has made available classroom and operational areas and The Yale & Towne Manufacturing Company which has provided the industrial truck equipment used for instructional purposes.

Plan 37 Sessions on Maintenance Problems

Thirty-seven sessions have been arranged for the three-day Plant Maintenance & Engineering Conference at the International Amphitheatre, Chicago, January 24-26. L. C. Morrow, consulting editor, Factory Management & Maintenance, will act as general chairman.

The conference is held concurrently with the four-day Plant Maintenance & Engineering Show, one of the largest industrial expositions. Both events are in their sixth year.

Changes in conference hours, and use of the new \$2,000,000 exposition hall by the exhibitors, will permit visitors to attend both the show and conference during non-conflicting hours. General sessions of the conference, which have been attended by as many as 2,300, will be held mornings in the arena of the Amphitheatre, directly adjoining the exhibits. The smaller sectional conferences and roundtables will be held in the evenings. Afternoons will be held free for the exhibits.

Separate roundtable sessions will be set up for each of five industries. These include the chemical industry, food, paper, steel and textiles. One sectional conference will be devoted to the process industries.

The ten topics to be considered at the general sessions are: What Management Wants from the Maintenance Program, What Maintenance Wants from Management, Advantages of Planning and Scheduling Maintenance Work, Limitations of Planning and Scheduling, Planning and Scheduling in a Medium-Size Plant, Selection, Indoctrination and Evaluation of Maintenance People, Communicating Information from Management to Maintenance Personnel and Vice Versa, Worker Motivation and Morale, and Getting Along with the Unions.

The eight sectional conferences will deal with: Maintenance and Construction of Plant Buildings, Control of Maintenance Activities in the Process Industries by Means of Standardization and Labor Measurement, Organization of the Maintenance Force, Maintenance Cost Control, Sanitation, Work Measurement and Work Standards, Preventive Maintenance, and Training the Maintenance Force.

The 16 roundtables will include, in addition to the five industry sessions: Maintenance of Electronic Control Equipment, Maintenance of Electrical Distribution Equipment and Lighting, Corrosion Control and Prevention, Lubrication, Maintenance Stores and Storekeeping, Use of Punched Card Systems in Maintenance, Safety, Protection and Fire Prevention, Project Scheduling, Es-

timating and Control, Maintaining Power Plant Equipment, Materials Handling Equipment Used in Maintenance and Maintenance Manuals — Content, Preparation, Use.

Advance registration cards for both the show and conference may be obtained from Clapp & Poliak, Inc., 341 Madison Ave., New York 17.

Electrical Defects That Cause Fires

"The fire was caused by an electrical defect."

So read reports on more than 200 fires every day across the country because electrical defects are one of the most frequent causes of building fires (second only to matches and smoking).

But what's an "electrical defect?"

According to a study by the International Association of Electrical Inspectors, fire-causing electrical defects range from worn out refrigerator motors and TV sets to improper wiring and the use of the wrong extension cord.

The findings of the electrical inspectors group appear in the current Quarterly of the National Fire Protection Association and their study is the most comprehensive available on the subject. Based on reports for 1953 from 58 United States and Canadian cities, the origins of electrical fires were tabulated for 73 different sources.

Most common origin of electrical fires was found to be defective and worn out motors, particularly those in home refrigerators. In second place were wires and cables defectively installed or worn out; heated appliances and incandescent lamps touching or too close to combustible material were third; and cords, those on circuit extensions for the most part, were the fourth most prevalent source.

In its tabulation of the specific types of electrical equipment involved, the study also points up the interesting fact that three times as many electrical fires originate in television sets as in radios—although radios in use far outnumber TV sets.

M&M Rail Clamp reduces car unloading costs . . .

- POSITIVELY WILL NOT SUP—Lessens danger of employees being injured in and around cars.
- HOLDS CAR WHEELS FAST—Stops danger of costly derailments.
- EASY TO POSITION—Can be placed in a minimum amount of time—no ties, blocks or shims necessary.
- 4. USE ANYWHERE—No special equipment required anywhere with the M & M Rail Clamp. It holds cars on grade fast, as well as cars on loading platforms, car ferries and sidings, also cranes, steam shovels and excavators. The M & M Rail Clamp fits any rail, worn or new. Model A—40 to 100 lb. rails; Model F—110 to 175 lb. rails.



425 Magee Street

Pittsburgh 19, Pa.



"WOVEN-Gards"

BETTER HAND PROTECTION

AT AMAZING LOW COST

"Woven-Gards" are hand protectors, mitts, pads, sleeves and aprons made of a long wearing woven cotton safety material. Provide flexi-

bility, comfort, resistance to abrasion and cutting. Highly oil absorbent. Excellent for handling oily, slippery sheets.

Porous weave makes them the finest protector for handling lower temperature jobs. Excellent protection at lowest cost. We manufacture a complete line of industrial safety apparel. Write for free catalog with price list.

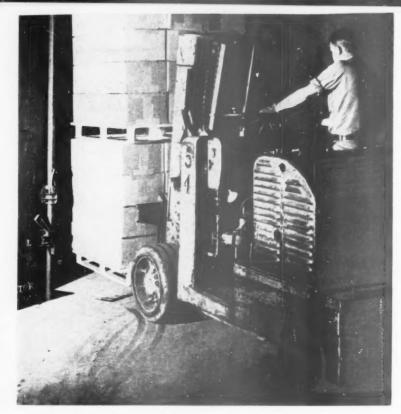


To be sure of INDUSTRIAL Trade Mar

INDUSTRIAL GLOVES COMPANY

1701 Garfield Street, Danville, III.

(In Canada: Safety Supply Co., Toronto)

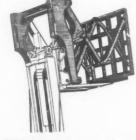


Name Your Load

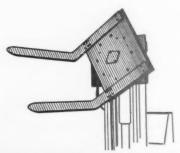
A fork truck can handle it



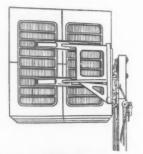
DUMPING ATTACHMENT. Dumping is accomplished without loss of lift. Driver selects position.



PUSHER. Eliminates manual unloading without pallets. **Permits** accurate positioning.

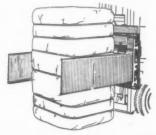


ROTATING FORKS. To discharge liquid, solid and granular materials from containers by rotation.



CARTON CLAMP. Handles fragile cartons without crushing. Gripping pressure can be regulated.

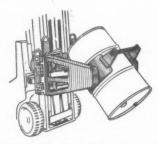
PALLETIZED LOADS. This is the most familiar use of the fork truck but attachments expand its usefulness. (Photo by Reynolds Metal Co. Sketches by Yale & Towne Manufacturing Co.)



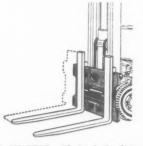
GENERAL PURPOSE CLAMP. Eliminates pallets from many types of unit loads. Can be used with rotator.



REVOLVING ROLL CLAMP. Rotation is 360 degrees in either direction. Picks up horizontal or vertical rolls.



DRUM ROTATOR. Picks up drums from either horizontal or vertical position for rotation forward or backward.



SIDE SHIFTER. Shifts forks laterally 4" each side of shifter. Picks up or deposits loads against walls.

Home Safety Checklist Mailed to Employees

A NEW SAFETY CHECKLIST which asks, "Are You Unsafe in Your Own Home?" has been prepared by the safety department at Crucible Steel Company of America and distributed directly to the homes of all employees.

The Crucible safety program is as concerned about the employees' welfare and well-being away from the job as it is with in-plant safety practice, according to A. D. Murphy, company director of safety.

A two-color placard, the homesafety checklist is designed for display in the home. It carries "Yes" and "No" check blocks for ten pertinent questions on home safety conditions:

- 1. Are electrical connections, cords, and plugs loose, frayed, or uncovered?
- Are stairways poorly lighted, steps loose, or handrails loose or missing?
- 3. Are floors oily or overwaxed; is linoleum frayed or turned up at edges?
- 4. Are flammable materials such as rags, papers, or paint stored improperly in the attic, basement, or closets?
- 5. Do medicine cabinets or shelves contain old or poorly labeled medicines or poisons?
- 6. Are firearms loaded and stored in unsafe locations?
- 7. Are kitchen knives or sharp utensils accessible to children?
- 8. Is your home poorly lighted?
- 9. Are wood-working and metalworking tools and machines improperly guarded?
- 10. Are boxes, crates, or luggage so piled that they will be easily knocked over?

Faith in the Individual

-From page 19

Business units were small and compact and communication was simple. Every man was, in effect, in business for himself, and his own responsibility either as manager, owner, or artisan, was clear, well defined, and easily understood.

As time went on, tools and techniques became too complex and expensive for the individual either to own or to use by himself. He devised organizations which permitted him to share the cost, and the effort with others. The demands of the times brought forth the









BULLARD - TACCO

SAFETY TRUCK STEP

The first truly practical truck step will prevent back injuries, sprained ankles, damaged freight and driver fatigue. Step is fully retractable. If accidentally left extended, it will retract automatically without damage. Firm non-skid treads. Attaches easily under trucks, on tail gates,

work tables, loading and freight docks.



WRITE FOR FREE ILLUSTRATED FOLDER AND SPECIFICATIONS



SINCE 1898

E. D. BULLARD CO.

275-8th STREET SAN FRANCISCO, CALIF.

integrated team into which were consolidated the specialized services of many different kinds of workers and technicians. Much of our present industrial effort demands the organization of large numbers of people - for modern production methods require unusual combinations of skills and resources - for the manufacture of steel, for example, or for the making of automobiles and aircraft.

Even research, with the advance of science, has of necessity come out of the attic and the backyard works op into the laboratory with hundreds of employees.

This merging of individual into group effort was perhaps inevitable-and, in a sense, is a measure of our progress, for the team exerts a leverage upon human effort that enables us to do together things far beyond the range of any of us working alone. It is a trademark of our times and. I am sure, a hallmark of our future. It is probable that we will become even more dependent on large organizations as our science and technology advance.

Unfortunately, as we become more and more dependent upon team performance, it becomes increasingly difficult to isolate and recognize individual accomplishment. Because we are faced with complexities and challenges which often are too sweeping for personal solution, the importance and significance of the individual is very likely to be minimized. In the field of science, in the field of business, in the field of politics, and in the military, we see emphasis placed on the theory that the individual exists only as a member of a group and that he is valuable and effective only as he works well with others.

This situation has created what seems to me to be a major management problem. For we must always, no matter how conditions change, preserve the individual incentive and individual opportunity that is vital to all successful endeavor. To the extent we sacrifice that opportunity and incentive, we sacrifice, as a simple matter of cause and effect, the dynamic thrust of our industrial economy.

Whether he is a member of a group or a solitary independent, it is the individual to whom we must look for accomplishment, for no group effort can ever be anything more than the summation of combined individual efforts. Our progress in the past has come about because we have given the widest possible scope to individual achievement and because we have lived in an atmosphere in which each individual was encouraged to give of his best. This applies to each of us, regardless of our particular job or the particular contribution we may be equipped to make.

The raw stuff of all progress is people. No matter how well organized or how technically sophisticated we become, the fact is that progress originates in creative thought, a purely personal attribute-just as characteristic of the worker on the machine as it is of the scientist in the laboratory, or the writer in his study.

The great advances in science and in thought have come about through the efforts of peoplepeople who perhaps struggled against the restrictions of environment, and who had the vigor. imagination, and initiative to question traditional patterns of thought. We have progress only when some individual, distrustful and impatient with existing concepts, blazes a new trail into the unknown, or has a dream and the individual initiative to make it come alive so that others may see.

We must not obscure the essential uniqueness of the individual by permitting the composite of the many to become a standard. There is evidence that we are in danger of doing so. Too many of our research establishments have a tendency to measure their stature in terms of staffs, buildings, equipment, and budgets. much of our legislation appears to discriminate against and to discourage individual accomplishment. Too many of our schools seem to be teaching us that man's highest pedestal can be reached through harmonious conformity rather than original personal achievement.

It seems to me that there is much danger in the assumption that quantity will ever beget quality. It is fallacious reasoning to expect that, if five men in a laboratory can produce a given result, ten men will produce twice as much, or that any amount of money and staff and buildings can substitute for the creative output of a single gifted individual.

The earliest team efforts on record were probably military exploits. Time and again, history has shown that mere weight of numbers does not win battles. Time and again, we have seen the inspiration and example of determined and dedicated men upset mass action. We have seen an individual with an idea redirect the energies and objectives of a multitude.

Our problem is to keep alive the powerful stimulant of individual thought at all levels and in every phase of our effort. We cannot afford to make a displaced person out of the Man with the

Individuals cannot be classified into neat little bundles and judged wholly on their capacity for adjustment. The other day I took one of the standard psychological testing sheets used so widely now in personnel work and applied it to a rare and highly individualistic American - Benjamin Franklin. Based on what we know of Franklin's character, I could only conclude that he would have had bad luck winning a place for himself today if he were judged on these standards.

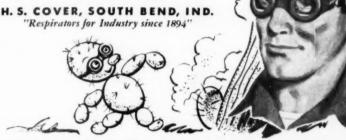
Some of the questions are rather interesting. One, for example. asks, "Do you daydream?" Ben, I am afraid, did. An affirmative answer would merit a poor score on the test, although Franklin's daydreams brought useful results in fields ranging from political science to stoves and bifocal spectacles.

"Are you impatient?" another question reads. Ben was-at least, he was impatient with conditions he found unsatisfactory and equally so with the people he "Are you thought responsible. more entertained by books than by companions?" I would guess that he was, at least by some books than by some companions. The response would be held against him presumably on the

Eyes

YOU NEED . . . FOG-PROOF GAS-TIGHT GOGGLES

... for paint spray, gases, dusts, fumes, smoke. They hug your face so securely that hazardous outside elements cannot reach your eyes. Fog is removed from lenses by an easy nod or shake of the head. The few drops of water placed on the inner wall of the lens do the trick. Can be worn with any respirator. Sample, \$2.00 postpaid.



Sell Safety – ON THE JOB!



FOR COMPLETE DETAILS WRITE OR PHONE:

Use AUTOMATIC EDUCATION with Admatic

Make your employees safety conscious all the time. Admatic Automatic Slide Projectors set up in lunch-rooms, by time clocks or lockers, or other convenient locations present a colorful safety story continuously. It's the modern, low-cost way to sell your safety program.

> NOW-for the first time SAFETY SLIDES AVAILABLE in sets of 15-Price \$27.50 per set

> > Sample Programs:

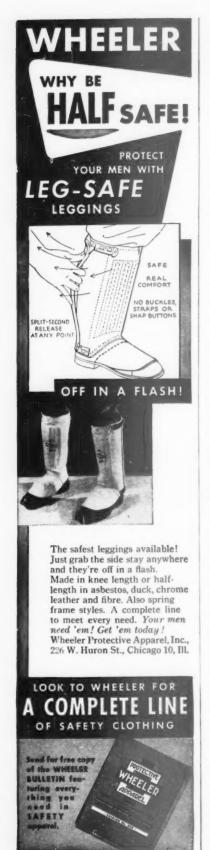
- General Interest Falls Are Never, Never Funny
- Be Alert
- Play It Safe Today
 - Follow Safety Rules · Or Use Your Own Slides
- · Get First Aid First Correct Lifting
- Housekeeping Pays
- Safety Styles

ADMATIC SPECIFICATIONS

- Completely self-contained
- No operator required
- Brilliant pictures in lighted areas
 - Shows thirty 35mm glass mounted transparencies
- New picture every 7½ seconds
 Large 16"x23" screen—larger than 21" TV
 Cabinet 5½ x28"x18" mounted on casters
 Easy to move from place to place

Corporation

70 WEST HUBBARD STREET . CHICAGO 10, ILLINOIS . TELEPHONE: DElaware 7-1831



theory that it is better to be gregarious than to be well-read. On some questions, I must concede I was unable to find any answer. Did he, for example, "get hungry suddenly with a quick pang?" I don't know, nor am I sure what that question is supposed to tell us.

My guess, too, is that Charles Goodyear and Elias Howe would have been rated as impractical dreamers. And Thomas Edison, with a history of insomnia and carelessness in dress, might well have been regarded by the modern personnel manager as an undesirable risk.

I commend this little exercise as an amusing way of passing an afternoon in testing yourself and your contemporaries. But don't be too distressed if you fail to make the grade.

It is quite obvious that these men of unusual gifts would fail to measure up by accepted group standards for the very reason that they were unusual men and it was their unusual characteristics that led them to greatness. In their refusal to accept without question the conventional restriction or the status quo of their times, they pioneered along trails where none had ventured before, and created much of value to the world. Others, happily, were to follow them-individuals making singularly individual contributions. We have many of them today, men whose imaginations soar far beyond the limited horizons of the

Here then is a major problemour economy requires group effort to perform its increasingly complex tasks, it requires also individual genius and accomplishment if we are to go on to greater spiritual understanding and material well-being. The task of the administrator in government, in business, in science, is to create group harmony, while at the same time encouraging high individual performance. The conquest of the atom could not have been accomplished without group effort on an enormous scale-it certainly could not have been accomplished without personal contributions of the highest order. The group serves as a powerful stimulant of ideas and a profound judge of their merit, but it cannot produce the flash of inspiration on which success and progress depend.

The horizons before us are indeed unlimited. Where the new pattern of science will lead, I do not pretend to know, but I am certain that the future will make the present as obsolete as the present has made the past. I will make one prediction—the scientific miracles of the future, like those of the past, will be wrought by men and women with courage, with the pioneering instinct to plunge ahead and to take the bold chance.

The principles applying to safety apply everywhere as, of course, they must. Safety, as the National Safety Council views it, is, after all, just one phase of a larger safety program which we might describe as national safety or national security. And in national safety we face exactly the same problem—how to preserve the element of individual responsibility against the abridgments which

NOTHING

is More Important than Human Life.

Nothing

is more effective in respiratory emergencies than the



STEPHENSON "MINUTEMAN" RESUSCITATOR

Three machines in one

RESUSCITATOR . INHALATOR

Weighs only 30 pounds. Easy to operate, does more for the patient.

Write today for demonstration without obligation or write for pamphlet N-12.



Makers of the Harger Drunkometer used all over in the industry and police departments, including New York. come with collective effort and collective security.

In the last twenty-five years, some really fundamental parts of the American structure of democracy have virtually disappeared. They have become little more than historical relics, preserved carefully under glass and sometimes exhibited as curiosities, but, nonetheless, retired from active service. In its attitude toward the individual, our concept of government has undergone a basic change.

The great American experiment in freedom as it was first conceived had, at its core, a revolutionary principle; that the individual was endowed with specific rights and privileges which could be neither limited nor taken away. Our whole body of law was responsive to the obligation to protect the individual against any intrusion of these rights; witness the specific provisions against seizure of his person or property, his right of fair trial, his right to

freedom of speech, assembly, and worship.

Today this concern for the individual has been to some extent replaced by a rationale which persuasively justifies itself under the plea of "The greatest good for the greatest number." This is perhaps a fine ethical principle, but, inasmuch as its application is largely a matter of opinion, it can serve to impose the will of the current majority, however adverse the effect upon the individual might be.

Armed with this thesis, there is no limit to the impositions and deprivations that might be directed at any individual or any minority group. Already we have seen them at work—the rights of individuals in the economic area, for example, have been disregarded to the point that the ancient virtues of thrift, enterprise, and initiative lose much of their original meaning.

National safety demands of us that we stand together and present our enemies with a front as solid as it is strong. This we can do without compromise of either our conscience or our substance. When we attempt, however, to use this concept to submerge the privileges of the individual and to infringe upon his rights, we lose both conscience and substance.

First, by giving one individual a mortgage on the efforts of another, we execute a twin injustice. One we deprive of the fruits of his labors and the rightful rewards of his industry and thrift. The other we deprive of his sense of responsibility. In the long run, I am not sure who suffers the greater loss.

Secondly, we impoverish ourselves, because, in time, we will have less and less to share as the will and the incentive to gain are weakened.

This is a serious turn of affairs and calls for serious thinking. When it is reasoned through, only one answer can emerge and it is this that gives me heart. We have progressed, in the past, in direct proportion to the degree of individual freedom afforded us and our progress in the future will be measured on precisely the same scale of values. I am quite



keep them on the job . . .

Low Cost Soap DESTROYS GERMS

GERMS COST you money . . . through illness and idle machines. Reduce that expense by providing degerm Liquid Soap with Actamer* for daily use throughout the plant. It's a real germ-killing soap that destroys up to 97% of all bacteria on the skin when used regularly... yet costs little more than ordinary soap. It won't irritate normal skin.



GET RID OF GERMS AND YOU STOP THE TROUBLE

Attractive plastic dispenser bottle free with trial order for one gallon or more.

Write today for prices and more information.



degerm.

Liquid Soap with Actamer*
KILLS GERMS AS IT WASHES HANDS
*Registered, Monsanto Chemical Company

HUNTINGTON CLABORATORIES

HUNTINGTON LABORATORIES, INC. Huntington, Ind. * Philadelphia 35, Pa. * Tarante 2, Ont.

You Can't Fall



Prevents death and injuries from falling.

SAFETY DEVICE FOR LADDERS

Easy and inexpensive to install: Clamps to rung, peg, pole or frame. No welding or cutting.

cutting.
Simple se operate: No upkeep. Requires no attention from climber. Anyone can use it.
Safety Specifications: High safety factor. Will not rust or corrode.

Safety Tower Ladder Co. 1024 Burbank Blvd. P.O. Box 1052 BURBANK, CALIFORNIA



ALSO MANUFACTURERS: SAFETY LIFELINE LOCK

Member National Safety Council sure that, when the facts become apparent, the American people will reaffirm their faith in those principles that have served us so

Our whole American heritage is a profession of faith in the individual-in the individual's sacred right to think, to plan, to create, and to dream. That was the faith of our fathers. Therein lies the hope and the safety of our future.

Protective Barriers

-From page 33

switches on both inside and outside. It also has on its leading edge a safety device which prevents anyone being caught during closing. In case of power failure, there is means of hand operation.

Operation of the generator is controlled from a desk-type console in an adjoining room. The

operator looks through glass that could almost be called transparent lead, since it analyzes 75 per cent metallic lead by weight. Furnished by Penberthy Instrument Company, Seattle, Washington, this remarkable new glass, called Hi-D, has a high refractive index (almost 2.0) and amazing clarity. The former permits extremely wide angle viewing, while the latter permits photographs to be taken from the outside, of objects within the radiation shielded cell.

The glass is almost as heavy as steel, weighing 390 lbs. per cu. ft., which is 21/2 times as heavy as ordinary window glass. Its radiation-shielding value is one-half that of metallic lead-or three times that of ordinary concrete.

Design work on the door part of the equipment was by C. A. Pangborn, a Seattle consulting engineer. Construction of the door was by the Pacific Steel Products Company, also in Seattle, and the lead came from Federated Metals Division, American Smelting and Refining Company.



-From page 29

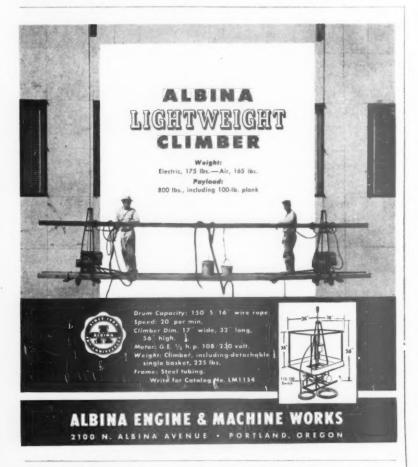
were reported. It is a safe assumption that many minor accidents that did not cause smashing of safety glasses or facial disfigurement, and therefore were not reported, could have resulted in eve injuries and/or eye losses.

I repeat that this saving alone in the preservation of any eye loss or serious injury has resulted in a saving much greater than the cost of maintaining our eye program for the past ten vears.

Another phase of savings has been a 90 per cent decrease in first aid eye cases over the tenyear period. This saved more than \$200,000 in direct costs.

In 1943, before the inception of the eye program, six eyes were lost and 56 serious eye injuries were sustained, many resulting in partial loss of sight.

That same year, our first aid eye cases numbered 9,560 with a plant population of 11,000. In 1953 our first aid eye cases totaled to 1,094 with a plant population of 18,000.





FOR SAFETY'S SAKE . DAV-SON FLASHIN

SAFETY DIRECTOR

With Amazing Changeable Letter Slide Out Panel

Bright reaffic light red, green spots flash
"SAFETY FIRST." Color, motion, light
bring eyes directly to message. Only
DAV-SON has changeable letter design
with removable panel for quick changes,
peak attention. 98 red 3½ and 250 black
1½" acctate letters in compartment box
incl. Size 18½x29x6. Complete with lamp
and U.L. Cord. \$39.73
Insix on genuine self-sealing cork back
bulletin boards—hardwood frame. Sizes
doors. \$4.15 up. Also with metal frames for inside or
outside use.

Outside use.

A Day-Son board for every purpose. Over 100 different sizes and styles to choose from. Dealer Inquiries Invited.

If your dealer doesn't have the Day-Son board you need write direct. A. C. DAVENPORT & SON, INC., Dept. NSN 311 N. DESPLAINES STREET . CHICAGO 6; ILLINOIS A statistical analysis of the year 1943 with a population of 11,000, is as follows:

- 1. 9,560 eye injuries requiring first aid.
- 2. 217 required more than first aid.
- 3. A total of 699 days lost.
- Six eyes completely blinded.

Direct expense involved:

- a) 9,560 first aid eye cases \$2.50 each\$ 23,900
- b) 217 eye injuries requiring more than first aid treatment. Several resulting in partial blindness, At \$300...
- partial blindness. At \$300...
 c) Six eyes lost at \$5,120.....
- d) 699 days lost

\$119,720

30,720

In 1953 with a population of 18,000 the following:

- 1. 1,094 first aid eye cases at \$2.50 each\$2,735
- 2. No eye losses
- 3. Three eye injuries requiring more than first aid treatment 1,137
- 4. 28 days lost

\$3,872

To achieve this success in eye safety 38,000 pairs of safety glasses have been issued in ten years and the tactful and diplomatic enforcement by supervision was necessary.

BURN!

PAIN...

SHOCK ...

SPRAY IT!

... the best and safest method for the "first aider" because he doesn't touch the patient!

QUICK, THOROUGH, PAINLESS, ASEPTIC ...

Doctors agree that certain basic conditions are present in all burn cases. The "first aider" is qualified only to deal with the first three: Relieve Pain, Prevent Infection, Treat Shock. Spraying burns does this best. And the MSco assortment of Burn Spray Kits is the largest ever offered: Americaine or Kip Antiseptic Oil in either compact Unit-Type Packets with Pressure Cartridge Spray or Complete Burn Spray Kits with Aerosol Dispensers; Foille and Hydrosulphosol Burn Spray Kits; Fire Department Kits. MSco also supplies all standard burn ointments in unit form for first aid kits. See your MSco distributor for a demonstration or write for details.



Medical Supply Company ROCKFORD, ILL. - IN CAMADA, IT'S SAFETY SUPPLY CO.

In addition to the protective phase of the program, which more than pays for itself, emphasis is also placed on visual correction for our shop personnel and on a program of pre-placement vision testing of applicants.

Approximately 18,000 eye refractions have been given to our shop employees requiring use of safety glasses. A careful job study was made so that correction glasses suitable for the task could be prescribed. The specific task and working distances have considerable influence on the type of correction glasses that may be needed for the job.

After the initial phase of refracting all our shop personnel (at which time we discovered in some departments as high as 45 per cent of the personnel in the department to have unsatisfactory vision to perform the job comfortably and efficiently) we have maintained a continuous periodic re-examining program.

As a result of our corrective eye program, management is aware of the high level of ability that is maintained for the shop personnel; which is a vital factor in the precision type of operation conducted at this plant.

Studies by N. Frank Stump¹ have shown a relationship of industrial accidents to poor vision. Studies by J. Coleman & R. Feinberg², N. Frank Stump³, J. Tiffin & S. E. Wirt⁴, and N. C. Kephart⁵ have all shown the important relationship of good vision and good job performance.

How much this corrective phase of our program has saved in terms

1. N. Frank Stump, How Inefficient Vision Causes Industrial Accidents. Optometric Weekly. July 1946.

2. J. Coleman and R. Feinberg, Vision Tests for Inspectors to Insure Good Placement. Factory, Management & Maintenance. January 1945.

3. N. Frank Stump, Better Vision and Improvement of Machine Tool Operator Efficiency. Machine Engineering. March 1947.

 J. Tiffin and S. E. Wirt, The Importance of Visual Skills for Adequate Job Performance in Industry. Journal of Consulting Psychology. 1944. Vol. VIII. No. 2.

5. N. C. Kephart, An Example of Increased Production Through an Industrial Vision Program. Optical Journal & Review of Optometry. September 1946.





- ★ TOUGH double-coated plastic cape.
- ★ WIDE-VISION replaceable window.
- ★ HINGED WINDOW SCREEN minimizes pitting.
 ★ MUSLIN INNER COLLAR prevents dust seepage.

Companion Hoods include: Blastfoe Abrasive Hood for shot-blasting and Lead Hood for protection against lead dust and fumes encountered in grinding operations.

Send coupon today for information and prices



of money and lost eyes has been difficult to evaluate. The fact that the work performed at our plant is not on a mass production basis makes it difficult to determine the exact savings in dollars and cents by improving visual performance. But we do know from reports of supervisors and foremen when we originally began our program that spoilage and waste decreased and production improved when employees' eyes were suitably corrected for the job.

As a result of our eye examination program 800 cases of eye pathology and other anomolous conditions has been invaluable information for our hospital records.

Special examinations are also given yearly to our chauffeurs. These tests include field tests (perimetry) and color tests.

The third phase of our eye program is one of pre-placement visual testing of applicants.

Visual screening tests have been given to 34,000 employees and applicants by means of the Bausch & Lomb Ortho-Rater. The use of this procedure in analyzing the visual capabilities of an applicant has resulted in better placement of the applicant on the job.

The supervisor is aware of the stringent pre-placement vision testing of applicants. He knows an applicant placed in his department at least has the visual skill capable of being able to perform his job satisfactorily. If the applicant is not successful on the job, the supervisor can eliminate vision as a possible deterring factor and seek other reasons.

The Ortho-Rater was also originally used in the initial phase of establishing our eye program to test all shop personnel and to separate those who required eye examinations from those with proper vision for the job.

A statistical study of one year's experience of pre-placement vision testing of applicants showed 21 per cent of all applicants failed to meet the established vision standards for the job. More than 90 per cent of the group were required to obtain the proper correction glasses. The applicant is not permitted to begin employment until this recommendation is carried out. This figure 21 per

cent may seem a bit high, but the nature of the precision type of work performed at Sperry demands high visual standards as compared to many industries.

The value of this pre-placement vision testing program for applicants is difficult to estimate, but is just another benefit obtained from our type of eye program.

The fifth phase of our program consists of eye examinations as part of the annual physical examination received by all executive personnel. This assures good vision care for management as well as shop personnel.

The Eye Service has been consulted on various problems in the plant dealing with lighting, painting, magnification problems encountered by engineers. We have been able to make many contributions toward their solution.

I believe you can weigh this information and judge for your-self whether the investment of \$400,000 in ten years has been economically justified as a worth-while expenditure.

To summarize:

- Expenditure of \$400,000 in ten years for the inception and maintenance of the Eye Program had been made.
- 2. In return for this expenditure the following benefits have been derived:
 - a) No eyes lost as compared to six eyes lost in 1943.
 - b) Eighty-two eyes known to have been saved.
 - c) First aid eye injuries curtailed from a high of 9,560 in 1943 to a low of 1,094 in 1953. A decrease of approximately 90 per cent.
 - d) Time lost in 1943 before inception of program 699 days. Time lost in 1953 28 days.
 - e) A corrective program for the maintenance of highest visual efficiency by means of periodic refractions of shop personnel.
 - f) A pre-placement screening program to assure proper vision for the job for new applicants.
 - g) An eye examination program for executive personnel as part of their annual physical examination.
 - h) Consultation services of the professional man supervising the eye program in various plant problems; such as lighting, color contrast painting, optical problems, magnification, problems of glare, dark and light adaptation, etc.

This program has proven that blindness resulting from an industrial accident can be completely eradicated throughout the country by means of an enlightened progressive safety eye pro-

Sperry's Eye Service Program has achieved results far beyond expectations. We consider the program a success and are firmly convinced that the value of this service cannot be overestimated.

Crisis of Opportunity

-From page 21

splash of posters telling of our record and opportunity to score the one best year in our history -play with the idea and, seeing the tension in Harry and feeling the tension in myself, I reject it. I'm not superstitious, but tension can be bad, and I don't want it spread across the plant.

So, Harry, you expect a brilliant idea from me, an original decision. You're not going to get it! Not this time, not on the edge of victory. This time I play it close and tight and most unoriginally. So I say to him aloud.

"Are those shoes well broken in?"

And he starts, looks at them, nods his head.

"They'd better be," I say. "You'll use them a lot this month."

"I don't get you," he says.

"You and I," I say, "are going to inspect this month like this plant has never been inspected before. Take your regular inspection route, and just double it. I'll triple mine, and if that makes us walk on each others heels, let it. I want every department covered so tight that there isn't time for a shaving of steel to get dirty before we know it's on the floor. Ir pect close, tight, and fast, and make your reports orally, on the spot, right now, to the man who can correct."

Harry thinks a moment. "Boss," he says, "that means six hours a day on the floor for me and four and a half for you. What happens to the reports, the files, the correspondence, the records?"

I knew the answer to that and gave it. "They go hang, if they have to. If my monthly report is late, it'll have to be late. I'd rather have it late and perfect than on time and lousy. We're going out



Immediately upon application, glass or plastic surfaces will remain FOG-FREE • STEAM-FREE • DUST-RESISTANT • OPTICALLY BRILLIANT, for several days.

- Eliminates work-interrupting time breaks for manual wiping of goggles, masks or eyeglasses . . . TIME SAVING.
 Fog-proofed lenses protect both worker and co-worker, and
- encourage use of eye gear constantly . . . GREATER PER-SONNEL SAFETY.

In the foundry — at the lathe — on the assembly line with the truck fleet — in the busy office, unobstructed vision pays dividends . . . OPERATING ECONOMY.



AVAILABLE AS: Refiliable Self-Dispensing Wall Cabinet

Individual pocket applicator

11/2 and 31/2 oz. Spray bottle

ORDER TODAY thru your dealer or write Dept. N-2

THE BUCKLEY CORPORATION 407 Fifth Ave. New York 17, N. Y.

EXTRA PROTECTION

AT THESE



CUFFS UP

Here's control of injurious liquids - keep arms and inside of gloves dry.

CUFFS DOWN

Extra margin of safety - a two-inch longer gauntlet for really plunging in.

PATENTED

TURN-CUFF INDUSTRIAL GLOVES

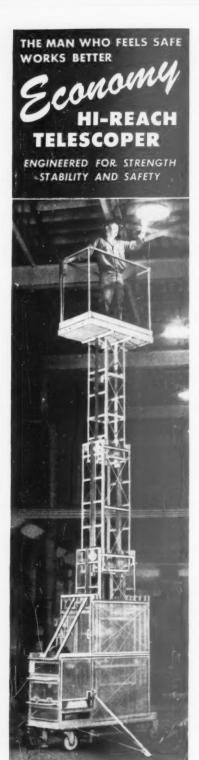
Surety Turn-Cuffs are available in a wide range of natural and synthetic rubber types created for specific jobs for long wearing life. As a positive protection against dermatitis and allergies created by injurious liquids you'll find a Turn-Cuff style to meet your needs as recommended

by so many safety directors and insur-ance companies. But even just for wearing qualities you'll find Turn-Cuffs the superior glove. From your Jobber or write direct.

In Canada, Safety Supply Co., Toronto



Carrollton, Ohio



Safety is our first consideration in build-

Satety is our nest consideration in build-ing Hi-Reach Telescopers.

During the past quarter of a century of making Hi-Reach Platform Tele-scopers, our engineers have constantly improved the mechanical construction to obtain maximum stability, smooth time-saving lifting action, and safety. Standard Models available from 10'-9"

to 35 ft. high, and custom-built units as high as 100 ft. if you like.

ECONOMY ENGINEERING CO. EST. 1901 4505-21 W. Lake St., Chicago 24, III.

and inspect this month, inspect for everything-housekeeping. material handling, goggles, guards, procedures everything.

"This is a push and a crisisa crisis of opportunity. We're caught up on routine and records and purchasing. File abbreviated reports, leave 'em with Sally. Anything I need to know, tell me quick. But the analysis and processing can wait.

"This is it, and we're playing for keeps. Tell your wife you'll be working some nights. I'll buy that time back in February, if you want it then, or slide in an extension of vacation next summer. This month, Harry, you and I have a job to do!"

Harry nods, and looks down at his shoes. "I was going to buy a new pair and break 'em in this month. Guess I'll wait."

He picks up his goggles and a clipboard full of inspection forms. He starts for the door, stops and says, "Boss . . . I think . . . I mean . . . this is the right way, isn't it?"

I think back to my days as a kid, and the look of the old boss at Monarch storming through the plant at five miles an hour, a pencil stub flicking checks on an inspection form, the joy of battle in his face.

"This had better be the right way," I say.

Heard at the Congress -From page 37

Off-Duty Accident Problem

Off-the-job accidents hurt industry more than work accidents.

Workers lose far more time from off-the-job injuries than from those suffered on the job. In my own company, the ratio is better than 10 to one.

Are off-duty accidents any of your business? They sure are, because of their terrific contribution to absenteeism.

-W. E. Helms, Bell Telephone Co. (Community Safety)

Sailors Ashore

In dry dock operations, seamen are apt to be as naive about accidents as the average landlubber would be aboard ship.

In many respects, seamen are "innocents abroad" when it comes to such heavy industrial operations as large scale welding, burning, cutting, erection, demolition, riveting and other major deck and engine overhaul operations.

R/Adm. Redfield Mason, USN. Military Sea Transportation Service. (Marine)

Silicosis in Mining

Most silicosis can be prevented on the job, but two limiting factors are engineering and operational problems and limitations, mainly human in origin.

The risk of silicosis occurs mainly in underground operations and in crushing and screening plants on surface.

Two methods are now being used to help overcome the engineering problems. Small mines which cannot afford full-time ventilation engineers are jointly employing them to design and maintain dust control equipment. Also, the Mines Prevention Association has made available its engineers to help smaller mines solve their dust problems.

THE KENNEDY "VICTORY" CAP



GREATER SAFETY FOR ALL

INDUSTRIAL JOBS

Better protection for all the hair all the time because the full, wide, snood-type back of the Kennedy "Victory" Cap permits complete coverage. Easy to put on. Adjustable to all head sizes. II styles to choose from. Manufacturers and distributors of

a complete line of safety clothing and equipment. Write Dept. NS-12 for information regarding your needs.

V. E. KENNEDY-INGALLS CO.

MILWAUKEE 18. WISCONSIN

On the human side, success in any program of silicosis prevention hinges largely on the attitude of management. If workmen are taught to do things properly and are provided the means to do so, exposure will be at a minimum.

—C. S. Gibson, Mines Accident Prevention Association of Ontario (Mining)

Freshness Gets Results

Fresh air and fresh material are essential for conducting successful plant safety meetings.

Success of Firestone's safety meetings may be attributed to: 1) interesting meetings, 2) air-conditioned rooms, 3) starting on time, 4) keeping them short, 5) making sure a film projector or other mechanical equipment is set up and ready to operate before the meeting 6) meeting regularly each month, and 7) having the boss take an active part.

—D. M. Cornell, Firestone Tire and Rubber Co. (Rubber)

Cases for Comment

-From page 58

Section 2.1.4 of the Code states, "an injury to an employee outside of plant premises shall be classified as an industrial injury if the absence from the premises is authorized by the employer or his agent and is in the interest of the employer or his agent."

The decision is simplified here because the injury did occur on the premises and the act involved was encouraged, if not fully sponsored, by the company. The result of such donations would also benefit the company directly or indirectly through better employee relations and possibly good public relations. Here, the hospital must have been operated primarily for the use of employees and availability of its facilities was possibly one of the employment incentives. If the company expected to benefit from such services it should also have

sellstrom safeguards designed for comfort

"DEPENDON" SHIELD

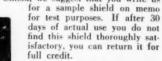


This is the No. 320 Sellstrom "Dependon" Shield, only one of a large variety of different style shields for eye, face and forehead protection against practically all known industrial hazards. It has a wide range of uses including: grinding, chrome plating, degreasing tanks, paint and scale removing, etc. Also used as a protection against heat, sparks, hot liquids and acids. Consider these special features:

- Changeable window is non-shatterable, expertly made from high quality clear acetate, highly resistant to heat, sparks and acid. Available in a variety of window sizes in either .020 or .040 clear or green acetate. Window is attached by five glove fasteners.
- Adjustable headgear to fit any head. Fibre cap for forehead protection.
 - Equipped with a swivel which permits window adjustment to any position; accommodates even the largest prescription glasses. Extremely wide
- Genuine leather sweat band assures real comfort and guards against perspiration hazards. Increases work efficiency.

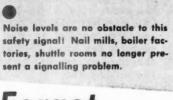
Most dealers carry these and other Sellstrom face shields in stock and can make immediate delivery.

If you have never used this "Dependon"
Face Shield, we suggest that you write us
for a sample shield on memo



sellstrom

Eye and Face Safeguards Designed for Utmost Comfort
222 HICKS ROAD PALATINE, ILLINOIS



Forget NOISE!



With or without audible signals in service a Beacon Ray with it's greater intensity and range will pinpoint the location of danger. An audible signal will fail to do this. Write for full details on the new low-cost Federal 27S Beacon Ray warning light.

FEDERAL SIGN and SIGNAL

Formerly: Federal Enterprises, Inc.

Corporation CHICAGO 19, ILLINOIS

8725 SOUTH STATE STREET

to suffer the detrimental occur-

Other considerations and problems would have to be resolved if, for example, the employee was given time off without loss of pay to donate to the Red Cross or some other public service blood bank. Or, if the employee had been excused to give a transfusion to a personal friend, or if going further, the employee were excused with pay for the performance of a civic duty such as civil defense activity, jury service or volunteer fire fighting. The code does attempt to consider injuries which occur out of instances which would normally not be considered in the course of the employment but yet receive certain sanction from the employer for being beneficial to him.

This brings up another important point—control over sending employees back to work after

they have been given medical treatment or medication by first aid or medical people, or have given blood transfusions as in this case. There may be delayed reactions to some individuals due to taking of certain antibiotics, or delayed reactions such as occurred in this case. Whoever is handling such treatment should make sure that the employee is not sent back to his work station until all such effects have been discounted. In fact, all precautions should be taken to keep from treating a worker with substances which might cause such reactions.

Comfortable, Low Cost Protection

STASAFE
TOE CLIPS

These heavy gauge steel caps are designed to protect the toes against injury caused by dropping heavy loads or sharp objects on the foot. Reinforced for greater resistance to impact, they offer lightweight, comfortable protection at an economical price.



Fits on the outside of any square toed shoe. May be ordered with removable attachment for intermittent wear or fastened to the shoe permanently.

Write for Bulletin No. 99

STANDARD SAFETY EQUIPMENT COMPANY

232 West Ontario Street, Chicago 10, Illinois

THIS TYPE SAFETY SIGN FURNISHED IN FROSTED OR LUMINOUS GLOW TRANSLUCENT GLASS FRONTS SAFETY SIGN STATION PRINTING COLOR FOR GLASS FIRE ESCAPE SINGLE OR SINGLE O

Parking Lots

The company had several parking lots on company premises. The premises were enclosed by a fence and were entered by a gate supervised by a plant guard. There was a two-lane roadway leading from the entrance to the property to the various parking lots. Parking lots were not supervised and it was possible for drivers to park in whichever lot they wished and in any location they found convenient.

The injured employee entered the plant property via the main gate and drove his car to a parking area parallel to the west property line fence. He then left this parking area and walked to the building where his time clock was located. There were two established routes to the time clock. One was along a roadway to an outside stairway leading to the basement of the office building where the time clock was located and the other was through another parking area which was cinderized and led to the same place. Approximately 85 per cent of the employees walked from whichever parking location they selected or from the plant entrance to the time clock using the second route through the cinderized parking area. While walking through the cinderized parking area from another and separate parking area where he had left his car, the employee fell, fracturing two ribs.

The company wanted to know whether paragraph 2.1.3 of the Code which reads "an injury occurring on a parking lot established on company property for the convenience of employees shall not be considered in the course of employment unless the injury occurs while the employee is performing the duties of his employment, or is under the directions of a supervisor," exempts this case from being charged.

Decision. This was a borderline case but it should be included in the company injury rates on the basis that at the time of the injury the employee was using this area as a regular company passageway and not directly as a parking lot.

Comments. The second half of Paragraph 2.1.1 of the Code states "in the course of employment... shall also include time spent, before or after working hours, in going to the place of employment from the entrance to plant property; or from the place of employment to the exit from plant property; or from one part of the plant to another during working hours." Paragraph 2.1.3 of the Code is an

exception to paragraph 2.1.1 of the Code mentioned above. For Paragraph 2.1.3 to exempt an injury from being counted, the injury must have been directly concerned with parking of a vehicle at the parking lot in question

If, as in this case, it is necessary for employees to cross parking lots or other areas of the plant premises, it behooves the safety man or some responsible person to periodically inspect these areas to see that hazards do not exist, to see that proper lighting is provided, that proper barricades are set up in case of construction or other work, and if traffic is involved, to see that sufficient control is established.

Many types of injuries are chargeable under the Code although they may not be exactly related to the particular employee's job assignment.

Green Cross News

-From page 48

industrial eye care; back strains; good housekeeping; and other fundamentals of industrial safety.

The three divisional programs started in late September and will continue their monthly sessions through the winter, with the final programs in late May.

Baltimore Home Inspection

Baltimore's Home Fire Safety Campaign was conducted October 1-11, sponsored by the Baltimore Safety Council, the Fire Department, public, private, and Catholic schools. Students took home to their parents a fire inspection form. The 1954 check list was worked out on a basis of points, and anything less than an 85 out of a possible 100, indicates that the home has hazards which need prompt correction.

Mrs. Jane Harvey

While safety council managers were meeting in Chicago on October 15, word was received that Mrs. Jane Harvey, wife of Julien H. Harvey, had passed away at their home in New Haven, Conn., following an illness of several months. Mr. Harvey has the sincere sympathy of his many friends

WHY RISK A TRAFFIC ACCIDENT IN YOUR PLANT

Because of Blind Corners



Klear - Vu Safety Mirrors for Industrial Use

- Klear-Vu Safety Mirrors are designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances and exits present a safety problem because of traffic accidents.
- Mounted at a height of 8 to 10 feet, Klear-Vu Safety Mirrors clearly reflect the movement of oncoming floor traffic from opposite direction—thereby removing principal cause for collisions.
- Mirrors are easily installed and adjustable for any desired angle. They are also adaptable for outdoor use.

Style	No. Dimensions	
Circular Convex Glass	120	12" Dia.
Circular Convex Glass	180	18" Die.
Circular Convex Glass	240	24" Dia.
Flat Glass Rectangular	918	9" x 18"
Flat Glass Rectangular	1640	16" x 24"

Write for bulletin:

Lester L. Brossard Co. 540 N. Michigan Ave. Chicago 11, III.



HEAD CAN'T FLY OFF!

The head and handle are forged in one piece...
no welds or joints. Eliminates danger to fellow
workmen and saves all expense and delay of loose
or splintered handles. Grip is genuine leather
proven most comfortable and durable.



Write for information ESTWING MFG. CO. DEPT. P ROCKFORD, ILL.





ate washing with plenty of running water as the best first aid treatment for any chemical In the eyes. Records prove that washing with water for ten minutes or more, close to the accident, is necessary to reduce or eliminate

Forehead operation leaves hands free to open eyelids so water can be directed wherever chemicals might be lodged. Sanitary white





BENSON & ASSOCIATES, INC P. O. Box 7542, Dept. N.S., Chicago 80, III.

Write For Details.

shatter

5 GALLON

among the safety council managers and NSC staff members, as well as the safety leaders in the many associations and cooperating groups with which he has worked during the past years. A married daughter also survives.

"Safety Swap Shop"

The Safety Council of the Dayton Chamber of Commerce now has a "Safety Swap Shop," an industrial accident exchange bulletin that the Council circulates from time to time. It describes plant accidents as reported by members, and outlines steps to be taken for preventing a re-occurrence of the particular type of accident reported. The Council's plant members are enthusiastic over "Safety Swap Shop," and more requests came in for extra copies than could be filled. Manager Marvin Purk promises a second issue soon.

Oregon's Industrial Meet

The Governor's Sixth Annual Industrial Safety Conference was held at Masonic Temple, Portland, Ore., November 18-19, and the keynote address was delivered by Hon. Paul L. Patterson, Governor of the State. Other featured addresses included a talk on "New Ideas in Industrial Safety" by Robert M. Evenden, safety director, Guy E. Aikinson Company, San Francisco; and a plea for cooperative effort in safety, voiced by William A. Callahan, Chairman of the State Industrial Accident Commission.

Sessions included logging, sawmilling, building construction. public utilities, petroleum and chemical, metal, log transportation, food processing, heavy construction, automotive, plywood, and a special session on problems of local governmental divisions. The Conference was sponsored by the Industrial Accident Commission, in cooperation with Management and Labor and various public agencies of the State.

Snappy Publication
The Golden Gate Safety News, a newsy, four-page tabloid newspaper, published by the San Francisco Chapter of NSC, made its initial bow at the managers' meeting in Chicago, and won many compliments for its format, news content, and illustrations.

Jack W. Soward, public relations director for the Chapter, is editor of this new house organ, successor to San Francisco Chapter News.

San Antonio's New Manager

The San Antonio Safety Council has a new executive director. Mrs. W. H. Abshire, who succeeds Col. John Hatch, manager of the Council from 1952 until his resignation in June, 1954. Mrs. Abshire has been a member of the Council staff since the first of the year. She is well known throughout the San Antonio area for her work as Home and School Safety Chairman for the local group, then the county P.T.A. association, and finally for the District Board of P.T.A., where she directed the safety work of the Association for 18 counties. She is now in her second three-year term of service in that capacity.

Mrs. Abshire is experienced in public relations and has been successful in enlisting the active participation of other groups in her P.T.A. activities. The San Antonio Council has six active committees: Legislation, Public Education, Industrial, Traffic, and Home and School.

Accident Drop Reflected in Costs

Two periods of operation without a disabling injury were reflected in a sharp drop in accident cost experience at American Automotive Corp., Miami, Fla. Airmotive's main plant worked from September 5, 1953 to February 23, 1954 without a lost-time accident, and a smaller subassembly plant avoided a losttime accident from February 27, 1953 to May 5, this year.

S. M. Decker, Airmotive's safety and security administrator, said, "Our cost experience for 1953 was \$6,056.30, representing 1,145,576 manhours for 609 employees, with a frequency of 11.1 and severity of .3. Our accident cost for the first half of 1954 totaled only \$772.95. Progress in plant safety . . . has added to the efficiency and economy of our operation."



Highway Zoo

Want to get folks talking and thinking about highway safety? Then just hand them a copy of Highway Zoo. The Council's new 4-color booklet is a conversation piece. Ideally suited for use in off-the-job accident prevention programs, it will give zip to your safety efforts.

the Jackrabbit

This is the scatback type who zigs and zags through traffic like a frightened bunny. He may be a fat, puffy old geezer who couldn't waddle 100 yards in 10 minutes. But behind the wheel of his car he's the shiftiest, most swivel-hipped jerk on the road—a real triple threat.



Highway Zoo is a natural as a souvenir item at safety award banquets, safety conferences, etc. Many firms will use the booklet in 1955 as mailing pieces. It will fit your program to a "T."

Send for a free sample copy and quantity prices.

Written by Paul Jones and with illustrations by Ralph Moses, this new publication is packed with humor plus a down-to-earth approach to accident prevention that drivers like and understand.

The new 16-page booklet is finished on top quality paper with ample room for imprinting on the front cover plus space for a message. Some agencies have made plans to use *Highway Zoo* as a tie-in piece for use with the "Make Courtesy Your Code of the Road" highway safety theme for March. In many states the booklets will carry appropriate messages from the Governor. These will be used as inserts or printed on the back cover.

Appropriate for any season of the year, *Highway Zoo's* biggest appeal is that it's a take-homepiece and a gimmick for upping highway motor manners. And the price is about half what you might expect.

Starting a Safety Program

The Council's book, How To Start a Safety Program, will help you get hold of your accident and fire problems—not the engineering details, but the management approach.

Management people frequently "buy" the safety idea, and then wonder what to do with it. All too commonly business concerns, worried by rising accident costs, take out membership in the Council and then wonder how to handle the abundance of material put into their hands.

How to Start a Safety Program presents a clear, short, simple statement of what to do first to get control of fire, health and personal injury hazards.

The information in the book applies to any kind of enterprise



which employs people—manufacturing plant, municipality, hospital or hotel, mine or lumber camp, railroad or truck fleet. Wherever there are occupational hazards there is liability of injury.

How to Start a Safety Program is not intended for only beginners in accident prevention work. Those who already have a program will find it a handy check on the efficiency of their work.

The book lists ten steps to safety and gives details on each step:

- 1. Study the records to find out who has been getting hurt, where and why.
- 2. Present the problem to the department heads.
- Set up a committee organization and an executive safety head.
- 4. Establish safety records,
- 5. Set up inspection routines.
- Study the jobs that seem to cause frequent injury.
 - 7. Give job instruction.
 - 8. Motivate workers to work safely.
- Investigate and analyze accidents, and apply the remedy.
 - 10. Follow up.

How to Start a Safety Program is illustrated in two colors and comes with a heavy paper cover. Price to both members and nonmembers is 75 cents. Quantity prices are correspondingly less.

Look to this page each month for latest news about NSC services.

Address requests for additional information, samples or prices to the Membership Department.

For a Successful Poster Program



Take time to THINK

JUMBO POSTER (no FERRUARY 1955

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".

POSTERS miniatured on this and the following pages are NEW. Those posters shown in one color on the following two pages are actually printed in two or more colors.

A wider selection of subjects is as close as your copy of the 1954 Directory of Occupational Safety Posters. It contains miniatures of 744 posters—topnotch selections on a great variety of subjects.

After January 1, please refer to the NEW 1955 Poster Directory.



HATIONAL SAFETY COUNCILLATION AND SAFETY COUNC

These new four-color posters are illustrative of the 72 four-color posters shown in the 1954 Poster Directory.



0350-C

25×38

Above new "C" poster, issued monthly, is indicative of the other two color posters—shown in one color on the following pages and in the 1954 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors

(Available only in sizes indicated)



NATIONAL SAPETY COU

0296-A

81/2×111/2



HATIONAL BAFETY COUNCIL

0138-A

81/2×111/2



MATIONAL BAPETY C

0263-A

81/2×111/2



0340-A

81/2×111/2



0325-B

17x23



0328-A

81/2×111/2

ACTUAL RESULT OF A FUEL SPILL



0339-A

81/2×111/2



0336-A

81/2×111/2



0267-B

17x23

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Posters below are printed in two or more colors

(Available only in sizes indicated)



17×23

0297-B

















V-0334-A 81/2×111/2 V-0345-B 17x23

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Safety Films

Further information on publications or films listed here may be obtained from Nancy Lou Blitzen, Film Consultant, Membership Service Bureau, National Safety Council

All Out for Safety, a new "O'Grady" film, has just been released by the National Safety Council. The film has only one professional actor, Jim Dexter portraying foreman "Gustave G. O'Grady." The rest of the cast is made up of the many safety engineers, managers, supervisors, foremen, and others who attended the 41st National Safety Congress in Chicago last year.

"O'Grady" arrives at the Congress in his usual skeptical state of mind. He doesn't need to know anything more about safety, but as long as he's here, he'll look around and enjoy this "vacation." It doesn't take him long, though, to discover that this Congress isn't going to be any vacation from work or a sightseeing tour.

He finds that this is serious business and the men attending are serious about it. He sees the newest materials for safety training aid meetings; he attends a meeting where a film on power lift trucks gives him some pointers on training he hasn't thought of before and that he can put to use; he picks up pamphlets and literature on safety; he hears a lecture on handling people; he tries out new safety equipment.

The most important thing he learns is that when everybody goes "all out for safety," it really becomes a big and important activity, and "O'Grady" for one, is pretty proud to be a part of it.

All Out for Safety is a black & white, 16mm sound motion picture, running 16 minutes. Prints are available from the National Safety Council for purchase, preview, and rental.

Eye Protection

Caution—Eyes At Work (16-mm sound motion) color. 23 minutes. Production date, 1954. TV/o.k.

Produced and sponsored by the American Optical Company, the film outlines the importance of an adequate industrial eye protection program. It shows how both management and workers can get maximum benefits from a safety prescription campaign, and concisely demonstrates how such a program can be started.

Prints are available for loan or purchase from the American Optical Company, Safety Products Division, Southbridge, Mass.

Inspirational Safety Film

Safety Pays (16mm sound motion) color. 22½ minutes. Production date, 1954.

A new film produced by Eastman Kodak Company presents an unusual appeal for safety. It states that since everyone has certain material wants in life—a new car, a home, a vacation, a remodeling job on the house—they must work to get them. More important, they must work safely, because accidents will rob them of the very source of income which will purchase these wants.

The film follows this theme by showing how safety engineers do everything in their power to make working conditions safe; how training classes insure the workers knowing their jobs so they can work safely; how foremen and



A scene from the Council's new "O'Grady" film, "All Out for Safety."

supervisors watch out for their workers so they won't have accidents; but in the end, it is the individual worker who holds the final answer to safety. He or she must want to be safe—safe enough never to have an accident, then the things obtained through work can really be enjoyed.

Although the film was made for Eastman's Kodak Park Works employees, the nature of the theme makes it suitable for many industries that want an inspirational film. Prints are available on a loan basis from Eastman Kodak Company, Department of Fire Prevention & Safety, Kodak Park Works, Rochester 4, N. Y.

Drilling Rig Safety

Rig Housekeeping (16mm sound motion) color. 10 minutes. Production date, 1954.

The film points out that safety on and about drilling rigs is only available when good housekeeping practices are observed. Shows how to maintain these practices on stairs, derrick floors, around pumps, in derrick, and other areas. Also shown are the necessities of keeping tools clean, storing lines and ropes properly, repairing stairs and ladders, and keeping the rig painted in accordance with safety regulations.

Prints are available from the film's sponsor, American Association of Oilwell Drilling Contractors, Safety Committee, 321 Reserve Loan Life Building, 505 N. Ervay Street, Dallas 1, Texas, for purchase or rental.

Directory of Films

The December quarterly Supplement to the 1954 issue of the National Directory of Safety Films* is now available. Containing descriptions of films covering industrial, traffic, home, general interest, and civil defense, as well as corrections and changes for films and sources in the Directory, copies are available from the National Safety Council on request. Copies of the August quarterly Supplement are also available on the same basis from the Council.

*The National Directory of Safety Films is available for purchase from the National Safety Council. Price for a single copy is 75c, including the available Supplements.

PUTS FLOOR - CLEANING ON PRODUCTION BASIS

throughout our plant

- Says Superintendent of Maintenance VICTOR ADDING MACHINE COMPANY, CHICAGO

Victor Adding Machine Company insists on maximum production in floor-cleaning as well as in manufacturing. Like other production-wise industrial concerns, Victor cleans floors with a Job-Fitted Combination Scrubber-Vac! This single unit

Completely Mechanizes Scrubbing

-applies the cleanser, scrubs, flushes if required, and damp-dries the floor -all in one operation! Job-fitted to specific needs, a Scrubber-Vac provides the maximum brush coverage consistent with the area and arrangement

Model 213P, shown in illustrations at left, is designed for heavy duty scrubbing of large-area floors. It has a 26inch brush spread, and cleans up to 8,750 sq. ft. per hour! Finnell makes still larger sizes - in gasoline as well as electric models - and also sizes for smaller operations. From this complete line, you can choose the Scrubber -Vac that will put your floor-cleaning on a production basis and reduce labor costs. And you can lease or purchase the machine. Maintenance men like the convenience of working with a Scrubber-Vac. This all-in-one unit is self-propelled, and has a positive clutch. There are no switches to set for fast or slow-slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly.

In keeping with the Finnell policy of rendering an individualized service, Finnell maintains a nation-wide staff of floor specialists and engineers. There's a Finuell man near you to help solve your particular floor-maintenance problems . . . to train your operators in the proper use of Finnell Job-Fitted Equipment . . . and to make periodic check-ups. It's also good to know that Finnell makes everything for floor care! For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 2212 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

· · Punch Press Room

Originators of Power Scrubbing and Polishing Machines



BRANCHES IN ALL PRINCIPAL

.Cafeteria

and other

NEW SAFETY EQUIPMENT

Further information on these new products may be obtained by writing direct to the manufacturer or by circling the corresponding item number on the Reader Service Postcard.



Control for Punch Presses

When this electro-solenoid control is installed, it is necessary for the operator to push two mushroom type buttons to trip the press. Both buttons must also be released to trip the press again. This safety feature is accomplished by back contacts on the push buttons and means that both hands of the press operator must be out of the danger zone while the press is set in motion. The operator cannot hold or tie down one button and trip the press with the other.

More push buttons can be added for installations where more than one operator is at the press. A foot control can be plugged in when it is necessary to operate the press in the conventional manner for blanking or similar operations, and the control set so that the press can be run in



continuous motion. In case of electrical failure, the device renders the press inoperative. Available in several sizes for installation on almost any make or size press, the unit is completely assembled when shipped.

Searjeant Metal Products, Inc., 88 Pittsford Road, Mendon, N. Y. (Item 1)

Wire Rope Clip

Called the Fist Grip, this new wire rope clip has been designed so that it cannot crush or distort the rope. It grips entirely by friction, not by crimping.

According to its manufacturer, thimbles attached with this clip deliver 95 to 100 per cent of rope



strength. Installation requires no special wrenches, and the nuts can be tightened with full swing of wrench. The clips have identical saddles and can't be put on upside down. The saddle and bolt is drop forged in one piece, and has a hot dip galvanized finish. Clips are available for rope diameters of ½" to 1½".

Thomas Laughlin Co., 33 Fore St., Portland 6, Me. (Item 2)

Explosion-Proof Footswitch

For areas where industrial and scientific processes involve the presence of explosive fumes, the new



Levinthal Model 3 Footswitch offers a construction comprising in its entirety Underwriters' Laboratoryapproved components for Class I, Group C & D; and Class II, Group E, F, & G hazards.

Electrical ratings of the unit for alternating current include uses up to 15 amperes at 125, 250, or 460 volts. Direct-current ratings are ½ ampere at 25 volts, ¼ ampere at 250 volts. Contacts can be connected for either normally-open or normally-closed operation. The new footswitch is of grounded construction, and is supplied in standard form with a 15-foot Type S cord and a 3-prong male plug.

Levinthal Electronic Products, Inc., 2947 Fair Oaks Ave., Redwood City, Calif. (Item 3)

Oil Resistant Sole

A recent advance in the safety shoe field is the micro-cellular neoprene cork sole. It is said to be exceptionally light and resilient, and is made of a combination of live neoprene and cork, having millions of tiny closed cells filled with nitrogen. The cellular construction gives a structure that will not absorb oil, water and other foreign matter; yet offers extreme lightness and resistance to slipping. Though light and flexible, this material has sufficient hardness to allow good stitching by machine or hand operations.

Cambridge Rubber Co., Vul-Cork Div., Taneytown, Md. (Item 4)

Sling Bridle

The Newco Sling Bridle converts a conventional sling to a two-leg bridle sling in a few seconds. This eliminates the necessity of a pear link, and costly eye splices. Since the tapered groove of the bridle firmly grips the sling, there can be no load slippage, even when the load is unbalanced. The legs of the bridle sling may be quickly adjusted for different loads, thus permitting many applications to material handling

jobs. This device is said to minimize the wear to crane and hoist hooks,



and prevents sling kinks and severe abrasion.

Newman Manufacturing & Sales Co., P. O. Box 5939, Kansas City 11, Mo. (Item 5)

Marking Machine

The Florline marking machine is now equipped with a new two-wheel assembly attached to the barrel. This improvement assists the operator in making straight lines at even faster speeds since the supporting wheels keep the machine "on track" with practically no effort and a minimum of direction. Upright when in use and upright when parked, the new Florline has the operating advantages of heavier power machines while maintaining maneuverability, lightness of weight and portability of two-wheel models. It carries the full weight-load and is adjustable to the operator's height. A slight lift of the handle raises the brush to



allow the machine to make skip lines or be wheeled to other areas. Deliberate steering of the retractable guide-wheel to right or left makes the curved lines. The upright model converts to a 2-wheel machine for narrow, crowded areas.

H. C. Sweet Co., 12345 Telegraph Road, Detroit 39, Mich. (Item 6)

Measuring Smoke Density

Called the "MSA Smokescope," this instrument can be used to determine whether or not fuel is being properly burned to gain full BTU advantage, and to assist in compliance with smoke control laws. With the Smokescope, observers are able to view a standard reference disk.

shaded to correspond with degrees of smoke density, against the background of a smoke plume. Light from the area adjacent to the stack is transmitted through one tube of

the instrument and through the reference film disk inside the tube to a front surfaced mirror. Reflected by the mirror, it passes through a lens to an image mirror where it may be directly compared with the smoke as seen through the other tube of the instrument. The reference film disk is placed at the focal point of the lens and thus



has the effect of placing the light rays reaching the eye in a parallel position. Film area is small and acts as a point source. The design of the instrument eliminates the possible interference of ambient light because the viewer sees the smoke through apertures which limit the field of vision to the subject.

Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh 8, Pa. (Item 7)

Rotary Snow Plow

Powerful yet easy to operate, this 2½ horsepower machine facilitates the removal of large quantities of snow from drives, sidewalks, and parking areas. Because the chain-equipped wheels are power-driven, the machine has the traction necessary to remove up to 2 feet of snow with minimum effort on the part of the operator.

In operation, the rotating screw located in the front of the machine



forces snow into power-driven 3/8" revolving steel blades which throw

it to the side. The deflector is adjustable to direct the snow to either right or left and to control the distribution. Because the force is sufficient to throw the snow 25 feet, the operator can distribute the snow widely to direct it away from shrubs, flower beds, etc., and to avoid high banks of snow beside drives and walks.

The Bready Tractor & Implement Co., 322212 Aurora Road, Solon, Ohio. (Item 8)

Telephone Sanitation

Telephones and other equipment with mouthpieces may now be safely cleaned and deodorized with this new disposable cloth wafer, impregnated with an active but harmless germicide. The cloth pads, called tel-O-cide, and packed in jars of 100, are recommended by the manufacturer for regular telephone hygiene in offices, factories, or institutions. Moisture from the pad dries



almost instantly on the mouthpiece and receiver, requiring no additional wiping to return the instrument to service after disinfecting.

General Scientific Equipment Co., 27th & Huntingdon Sts., Philadelphia 32. (Item 9)

Coolant Aerator

The use of coolants on lathes, milling, grinding, and other tools is essential, but present methods of application have resulted in many disadvantages. Prime objection is the splash of coolants, from both the the "bounce action" on metal surfaces and liquid thrown off by centrifugal force. Makeshift baffles and exhausts used in many plants have served only partially to keep machine operators and floors dry. The Mel-O-Flo coolant aerator eliminates splash, thus offering the safety factor of dry floors. Connected directly to the coolant line, it mixes air with the coolant, resulting in a non-splash aerated mixture. Aerated coolants cling to work and tools, and throw-off is reduced. The superior wetting action of the aerated coolant accelerates heat dissipation. According to the manufacturer, aerated coolants leave no vapors. All soluble and light oil coolants now in use can be used with the Mel-O-Flo, so that no change in material or equipment is required. Whenever the coolant supply is turned off, the aerator is automatically purged of chips and sludge, allowing uninterrupted machining.

Melard Manufacturing Corp., 432 Austin Place, New York 55. (Item 9)

Fiber-Glass Safety Hat

This new line of safety hats meets general industrial requirements and Federal specifications for electrical resistance, impact and penetration by falling objects, flammability and moisture absorption.

The full-rimmed hat, 14 ounces, and the cap (with visor only) 12¼ ounces, are made in grey, white, yellow, green and brown. A combination safety cap and arc-welding



helmet is offered with either fixed or lift-front lens holder. The headband is made of extruded plastic with replaceable, cork-lined sweatband, said to hold its shape and give firmer fit. Straps of webbing form the usual cradle on top of the head.

Jackson Products, Inc., 31739 Mound Road, Warren, Mich. (Item 11)

Welding Hose Reel

With a capacity of 150 feet, the Model OAB self-winding reel eliminates the safety hazard of leaving unused welding hose on the floor. It also increases hose life because it eliminates floor wear and abuse.

Besides the extra large hose capacity, the reel has a spring and gear retracting action, and an easily operated catch for locking hose at any desired length. The reel is also equipped with a bracket for mounting in any desired position.

United Specialty Corp., P. O. Box 698, Eldorado, Ark. (Item 14)

Air Blast Valves

A new delayed action air blast valve has been introduced to the line of production tool valves by this manufacturer of machine tool accessories. The valves are built to blow after the cam has passed over the valve roller. Delayed action is required on compound blanking dies and similar jobs where stamping is

freed right at the top of the press stroke. A full line of sub-assemblies



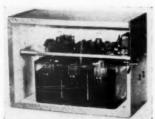
for this and other air blast valves is available. These assemblies when attached to punch presses provide automatic ejection of parts, affording savings in costs, air and time, and safety to press operators.

F. J. Littell Machine Co., Air Division, 4165 Ravenswood Ave., Chicago 40. (Item 13)

Emergency Exit Lights

These units are designed to operate from the regular 115 volt lighting circuit and in addition provide instant, automatic emergency light when that source of power fails. This is accomplished by batteries contained in the unit and the relay which closes the low voltage circuit automatically whenever the 115 volt service fails. Both wet and dry battery operated models are available. The wet battery models contain





equipment that automatically keeps the battery at full charge; dry battery models use standard 6 volt batteries. In addition to the exit sign, special signs can be furnished to specification in any desired lettering, color or size.

Electric Cord Co., 195 William St., New York 38. (Item 14)

Emergency Eye Washing Bottle

The "Wash-Away" bottle was developed as a means of providing individual workers or small groups with a supply of water within reach for immediate washing of the eyes in the event of accidental exposure. Made of polyethylene plastic, the bottle is easy to use—one squeeze starts the flow and provides a continuous stream of water of seven to eight minutes duration. Another important feature is that there is no



pressure behind the water which might force the corrosive or foreign matter into the eye socket. The bottle is printed in permanent letters with full directions for use.

Industrial Products Co., 2850 N. Fourth St., Philadelphia 33. (Item 15)

Floor Scrubber and Polisher

The Model 800 Series motor-weighted scrubber and polisher has just been announced by this well known manufacturer of floor maintenance equipment. These multi-purpose machines may be quickly adapted to floor scrubbing, carpet shampooing, floor waxing or polishing or any other operation of efficient floor care. This new series uses a General Electric capacitator type motor of drip-proof construction. Motor power is transmitted to the brush through a planetary drive, assuring high power transfer to the



working brush. Each machine is equipped with a 50 foot rubber covered cable, and is finished in twotone baked enamel. The gear case is sealed and does not require greasing. Models are available with from 15 to 21 inch brush spreads, and the weights range from 85 to 110 pounds.

Finnell System, Inc., 2200 East St., Elkhart, Ind. (Item 16)

Safety Valve

Designated as Model No. 350, this new combination valve protects against over-pressure and fuel-fed fires in gas installations, and is designed for installation just ahead of gas meters in plants, hospitals, and public buildings.

According to the manufacturer, the valve can be mounted in any position, even upside down. Extremely simple in design, the fundamental tripping mechanism shows instant positive operation. Positive



shut-off eliminates leakage in the gas line beyond the valve due to over-pressure or fire. There is no possibility of premature shut-off due to vibration in the line, as the valve construction is vibration-proof.

The design also makes it explosion-proof. The entire operating head can be knocked off in an explosion and the valve remains closed. The flow of gas is under the seat. When closed, only the disk and spring are needed to prevent flow. The exposed fusible element is designed to meet Underwriters' Laboratories tests.

Valco, Inc., 1410 West Ave., Cincinnati 15, Ohio. (Item 17)

Resuscitation by Air

The Seeler Universal Resuscitator is designed to operate from a fresh air blower and can be operated on electric current of 110, 28, or 8 volts. Weighing less than 10 pounds, this

new unit was originally developed at the Aero Medical Laboratory, Wright-Patterson Air Force Base. The resuscitator is well suited for police, fire, rescue, squad, ambulance



and other emergency services because it can be operated on the current from a car or truck battery. It may be operated on positive and negative pressure, or on positive pressure alone. Fitted with an oxygen cylinder, the unit weighs 29 pounds.

Globe Industries, Inc., 125 Sunrise Place, Dayton 7, Ohio. (Item 18)

Opaque Projector

Designed for the Viewlex slide or film-strip projector, this attachment converts the projector into an opaque projector, which may then be used to project opaque objects to full screen size. Called the Viewpaque, this attachment may be used to project charts, drawings, and other items the lecturer wishes to illustrate, or for close-up study of small detail.



Viewlex, Inc., 35-01 Queens Blvd., Long Island City 1, N. Y. (Item 19)

Chippers' Goggle

The problem of preventing lensfogging is attacked from three different angles in the new Penoptic Model 900 chippers' goggle. In addition to the usual perforations in the side shields, this goggle is constructed to provide extra ventilation directly to the inner lens surfaces through slots in the lens retaining rings, and channels in the lens seat area, as well as through wide channels between the lens retaining rings and cupwalls.

A metal reinforcing ring molded into the inner rim of each cup assures retainment of original cup thread dimensions under all conditions. Beveled aluminum retaining rings hold lenses securely; are threaded to permit lens replacement without tools. The goggle is available in brown opaque. clear or green



transparent thermo-plastic cups with standard 50mm size safety lenses.

Pennsylvania Optical Co., 240 S. 8th St., Reading, Pa. (Item 20)

Warning Stripes

These diagonally striped danger signals are self-sticking, and may be applied permanently wherever needed in a plant, office or warehouse. Available in rolls 648 inches to 1296 inches long, and widths from one inch to three inches, the strips may be applied to any clean, dry surface without moistening.

Stock warning stripes are made from three different self-sticking materials: (1) Acetate plastic for indoor application, (2) Polyvinyl plastic for outdoor applications and in areas where dirt, grease, oil and solvents are prevalent, and (3) "Scotchlite" reflective material for use whenever warning signals with brilliant reflection are necessary. Color combinations are: yellow and black, black and white, and red and white. A chevron pattern may be obtained by applying right and left hand stripes side by side.

hand stripes side by side.

W. H. Brady Co., 727 W. Glendale Ave.,
Milwaukee 12, Wis. (Item 21)

Portable Vacuum Cleaner

The Hoffco-Vac 35 is a 5-hp portable vacuum cleaner designed to



operate two 50-foot, 1½ inch hoses simultaneously. It has a large dust

bucket and is equipped with an exhauster and motor which produces 6.5" hg suction. The new machine is recommended by its manufacturer for use as a general housekeeping tool to keep floors, wall, lights and other dust catchers around the plant clean. It is said to be both compact and highly maneuverable, and may be turned within its own length. Because of balanced impellers in the exhauster, the machine operates with little vibration or noise.

U. S. Hoffman Machinery Corp., Air Appliance Div., 105 Fourth St., New York. (Item 22)

Heat-Resistant Apparel

Called "Fyre-Armor," this new, lightweight aluminized fabric is available in heat-resistant clothing of many types. The ten models range in weight from five to ten pounds, and are made of fabric fused to metallic layers which have been topped with specially treated



aluminum foil. According to the manufacturer, body temperatures recorded under "Fyre-Armor" remain normal even in radiant heat of 2500° F. Hoods made of this material allow 180 degree visibility, and permit the use of breathing equipment. Hoods, leggings, aprons, boots and coats may be obtained separately.

Far-Ex Corp., 75 West St., New York. (Item 23)

Liner for Safety Hats

The "Head-O-Gard" is a new helmet liner made of hat felt. Available in sizes 6¾ to 7½, this liner features an embossed top and side corrugations which give added protection against head irritation caused by the harness inside the helmet. Ventilating eyelets are optional, and the liner may be worn with ear-muffs for cold weather comfort.

According to its manufacturer, the liner is easy to clean and will not shrink or lose its shape. This company also manufactures a onepiece, fleece-lined heat warmer and fur-lined earmuffs, to be worn underneath a helmet.

Louis A. Gann, Inc., 1300-02 Light St., Baltimore 30, Md. (Item 24)

Foam Charges in Plastic Bag

National foam charges for 2½ gallon foam fire extinguishers are now packed in moisture-proof plastic bags. The "A" and "B" chemicals are enclosed in individual heat-



sealed polyethylene plastic bags with instructions for use printed plainly on the front of each. No deterioration will occur because of climate or moisture. The new packaging also results in shipping economies, easier handling, less storage space. National cold-water chemical foam charges can be used in any make of 2½ gallon fire extinguisher. One charge produces more than 20 gallons of foam.

National Foam System, Inc., Westchester, Pa. (Item 25)

Lamp Changer Pole

Called the "Space Arm," this adjustable boom may be obtained in lengths up to 30 feet. The standard boom adjusts from 8 to 15 feet. Though specifically designed for changing light bulbs and fluorescent lamps, it also may be used for raising and holding in place pipes, conduits, fixtures, sheet metal duct or almost anything up to 25 pounds that is to be secured overhead. On one end of the boom is a clamp that



grips pipe up to $1\frac{1}{2}$ inches. This clamp opens or closes quickly by rotating the boom. The clamp is also a changer for all size Slimline lamps

and will hold a sponge for cleaning reflectors, etc. On the other end is a vacuum cup for gripping flat or curved surfaced articles. This cup can be used as a changer for incandescent lamps 10 to 1500 watts, including flat bottoms. All heads are interchangeable. The boom may also be used horizontally between walls or for shoring, and for retrieving articles from difficult places.

Lamp Snatchers Co., 3013 N. Clark St., Chicago 14. (Item 26)

Emergency Hand Light

A ten year guarantee backs up this new hand light equipped with a Nickel Cadmium battery, which has a life expectancy of 15 to 20 years or 1000 cycles (charges and discharges). Each discharge, rated for 8 hours of continuous lighting, represents 8000 lighting hours. This is equivalent to 2000 71/2 volt dry cells producing an average of 4 continuous hours of lighting per unit. Another important factor is that a fully charged nickel cadmium battery delivers a full 80 per cent of its capacity after one year of non-use, and 60 to 70 per cent at the end of two years, according to its manufacturer. The battery is completely water-tight, allowing use of the hand light in any position and requiring additional water only after periods of one, two



or more years. Since the battery is immune to freezing, the hand light may be used or left in sub-zero temperatures without damage. The battery weighs only 7 ounces and may be recharged with any ordinary automobile battery charger.

Dual-Lite Co., 186 Front St., Bridgeport 6, (Item 27)

White Neoprene Glove

Designed specifically for use by food manufacturers, processors and handlers, this white neoprene glove called "NEO-SOL" is said to resist abrasion, snagging and puncturing, and also protects the hands against irritating, corrosive and dangerous chemicals. The glove has a red roll

at the cuff and a red inner lining. It is made with curved fingers, and is available with either "grip-saf"



hand or smooth finish. The white glove is suitable for all industries that require both product sanitation and hand protection.

Charleston Rubber Co., Stark Industrial Park, Charleston, S. C. (Item 28)

Combustion Control System

Complete protection against explosion hazards of burning fuel for users of light oil, gas and combination light oil/gas burners is claimed by the manufacturer of this new combustion control system. Identified as System FJ-2, it is said to provide the instant flame detection and flame failure prevention required by new safety codes. The system visually monitors oil and gas, main and pilot flames, and shuts off all fuel two to four seconds after the flame goes out. It automatically programs the startup, operating, and shutdown cycle of the burner, permitting unattended operation. On piloted burners, it does



not allow the main fuel valve to open until the pilot flame is established. Where direct electric spark ignition is used, the programming control provides a five second trialfor-ignition. The control cycles each time operating or limit control closes but must be manually reset following flame failure.

Electronics Corp. of America, Combustion Control Division, 718 Beacon St., Boston, Mass. (Item 29)

Rolling Work Tower

Work towers, similar to the one illustrated, can be built from standard Safway parts in any height up to 200 feet. Towers up to five scaffold frames in height need be only one frame in width, unless a larger work platform is desired. Towers from six to eight frames high should be at least two frames wide, and a height-to-width ratio of three to one should be maintained for higher structures.

Safway steel stair sections are made with goose-neck spring clamps at both ends which can be clamped over cross members of the scaffold



frames. A landing is provided at the lower end of each stair section. Both the landing and stair treads are perforated with holes punched up from below to give a safe, corrugated surface. The stair sections are available in two lengths which will fit Safway scaffold frames of

five feet and six feet-four inches high, respectively. Close adjustment of the platform height can be obtained by means of the screw jacks in each leg of the tower. Five-inch swivel casters permit the tower to be rolled to the work position, and a safety brake operating on both the wheel and the swivel locks the tower firmly at each location. Adjustable screw jacks between the casters and the scaffold legs compensate for uneven ground.

Safway Steel Products, Inc., 6234 W. 3rd St., Milwaukee 13, Wis. (Item 30)

News Items

A. Schrader's Son, makers of pneumatic tire valves and air control equipment, have established a new California branch headquarters at 6464 Flotilla Street, Los Angeles 22. The main office and plant of this organization is located at 470 Vanderbilt Avenue, Brooklyn 38, N. Y.

New offices for the John B. Moore Corp. were occupied early in October, according to an announcement by John A. Campbell, the company's vice-president. The move takes the organization to the Peerless Building, 384 Franklin Avenue, Nutley, N. J., and provides more than twice the space available in their present quarters.

This company, a leading producer

of industrial solvents and related application equipment, also announced the appointment of Irving Q. Sarlin to their board of directors, as well as the appointment of several technical service and sales representatives—Charles C. Searles of Wilmette, Northern Illinois area; Charles H. Cadiz of Washington, D. C., District of Columbia, Delaware, Maryland, and Virginia area; William I. Lightfoot of Louisville, Kentucky and Tennessee; and Industrial Equipment Company, Kansas City, for the central west area.

Combining the resources and the experience of the Hammond Iron Works of Warren, Pa., Kittell Muffler and Engineering Co. and Lacy Manufacturing Co. of Los Angeles, the new Kittell-Hammond Co. has been formed to design and construct noise reduction facilities for installation east of the Mississippi River. An affiliated company, the Kittell-Lacy Co. of Los Angeles, performs the same services for aeronautical and general industrial application west of the Mississippi. Officers of the new company, a Delaware corporation, are Ralph E. Kramer, president, Robert Y. Kopf, vice president, Harry D. Kopf, Jr., secretary, and Claude F. Schindler, treasurer.

Main office and headquarters of the company are located in Warren, Pa. Manufacturing plants are at Warren and Bristol, Pa., Birmingham, Ala., Provo, Utah, Casper, Wyo., and Los Angeles, Calif.

. . .

President of Globe Industries, Inc., Max Isaacson, has announced the appointment of John B. Dunne as production and sales manager of the company's medical and hospital division. Formerly professional services representative of Mine Safety Appliances Co., Mr. Dunne has been active in the development and sales of resuscitation and other exygen equipment. He is also widely known for his World War II work as consultant on industrial plant protection for the War Department, industrial plant protection executive, national field representative for the American Red Cross, and as the author of the course on industrial safety for the Massachusetts State Department of Education, University Extension. The Globe Co. is located in Dayton, Ohio.

The new Los Nietos plant of Wyandotte Chemicals Corp., J. B. Ford Division, is now in production. Located at 8921 Dice Road, Los Nietos, Calif., 16 miles southeast of the heart of Los Angeles, the new facility is one of the largest installations on the Pacific Coast for the production of specialized cleaning materials for business and industry. The new plant is equipped to produce both liquid and powdered, sanitary and maintenance cleaners, germicidal products, as well as specialized cleaners for metal cleaning, power laundering and citrus fruit processing.

Pyrene Manufacturing Co. and its wholly owned affiliate, C-O-Two Fire Equipment Co., are furthering their unification program in the east, midwest and far west and will continue with their main operations in Newark, N. J., according to an announcement by S. R. Baker, chairman of the board.

In the east, manufacturing operations at the Belmont Avenue plant in Newark will be discontinued. However, full manufacturing operations will continue at the U. S. Highway 1 Plant in Newark as well as their newly enlarged midwest and far west plants in Chicago and Los Angeles. The newly enlarged midwest division facilities in Chi-

cago at nearby Blue Island, now include sales and engineering divisions, as well as a large demonstration field with increased warehousing space and manufacturing facilities. The former branch office and warehouse facilities in San Francisco have been moved to the Los Angeles location to provide concentrated facilities and better service for the Pacific Coast area.

Mathias Klein & Sons, one of Chicago's pioneer industries, has moved to its new plant and office located at 7200 McCormick Road, Skokie, Ill.

This firm was established in 1857 by Mathias Klein who came from



Germany and started a small forge shop not far from what is now Jackson and Dearborn Streets. With the extension of telegraph lines, the need for linemen's tools became evident, and Mr. Klein proceeded to meet these demands with a specialized line of linemen's tools and equipment. The new plant provides 110,000 square feet of space, and is of the popular single-story design.

J. P. Marischen, Manager of the Ampco Centrifugal Pump Department of Ampco Metals, Inc., Milwaukee, has announced the appointment of four Ampco pump distributors to service southern sales areas. The O'Neill Pump and Engineering Company, Richmond, Va., and Dixie Brozne Co., Birmingham, Ala., will supply Ampco pumps in the Richmond and Birmingham areas. American Supply Co., Kilgore, Tex., and R. C. Foltz Co., Houston, will service the sales areas of their respective cities.

The Weldrod Department of this company has announced the appointment of two new franchised distributors. The Hart Industrial Supply Co., 726 West Grand Avenue, Oklahoma City, will cover the sales area adjacent to that city. Arcway Equipment Company, 110 North 8th Street, Richmond, Va., will service the Richmond sales area.

Another new distributor is the Industrial Supply Company, 451-53 East Broad Street, Hazleton, Pa., who will service the Wilkes-Barre, Hazleton areas.





That's why OVER
70%
of the largest manufacturers
and many school systems

USE ŌNOX

in shower rooms!

NO TROUBLE TO USE

No splash, no mess, easy to maintain. Nothing to get out of order.



TOUGHENS SOFT SKIN

Athlete's Foot is
Shoe - Softened Skin
(U.S.P.H.S.
tite'
Bul. R-674).
ONOX Mineral
Salts toughen soft
skin and make it resistant to fungus growth.





and fracture board



Adds greatly to the safety of your shop • Provides safe nonslip footing • Absorbs oil and grease • Lessens fire hazard because, unlike saw dust or wood shavings, it is non-in-flammable • Every shop needs this low cost safety aid.

A trial will convince you. Send for FREE SAMPLE.

TAMMS INDUSTRIES, INC.

Dept. RM10 - 228 N. La Salle St. Chicago 1, III.

Guide Pin Covers



PROTECT OPERATOR AND GUIDE PINS

Effectively guard against injury to operator, die and press on operations where bushings leave the guide pins. Protect pins and bushings from chips and dirt when entire pin and bushing are covered. Inexpensive, easy to attach.



31 South St. Clair Street - Dayton 2, Ohio

Sanitation Foundation Plans Expanded Program

ELECTION OF 11 NEW MEMBERS to the Board of Trustees of the National Sanitation Foundation was announced by Dr. Henry F. Vaughan, president of the Foundation and dean of the School of Public Health, University of Michigan.

New board members are:

Harvey J. Campbell, executive vice-president, Detroit Board of Commerce; Walker L. Cisler, president, The Detroit Edison Company; Simon D. Den Uyl, president, Bohn Aluminum & Brass Corp., Detroit; Dr. William G. Fredrick, director, Bureau of Industrial Health, Detroit Department of Health; K. T. Keller, chairman of the board, Chrysler Corporation, Detroit; Dr. Joseph G. Molner, Commissioner of Health, Detroit Department of Health: J. Thomas Smith, president. Detroit Harvester Company: Dr. Leonard A. Scheele, Surgeon-General, United States Public Health Service, Washington, D.C.: Herbert B. Trix, president, W. M. Chace Company, Detroit; James B. Webber, Jr., general manager, The J. L. Hudson Company, Detroit; and Herbert J. Woodall, president. Woodall Industries. Inc., Detroit.

The new appointments bring to sixteen the number of Trustees of the National Sanitation Foundation, whose headquarters are at the University of Michigan's School of Public Health.

Other members of the Board, besides Dr. Vaughan, who was Commissioner of Health for the City of Detroit from 1918 to 1941, are H. William Klare and Judge Arthur J. Lacy of Detroit; John H. Wright, of Toledo, and Walter F. Snyder of Ann Arbor.

The National Sanitation Foundation (NSF) is a non-profit organization established in 1945 to promote a better quality of American living through cooperative action by community, industrial and health leaders toward improvement of environment.

Environmental improvement is considered by the Foundation to

include pure water, sufficient in quantity for all purposes; clean air; noise control; satisfactory disposal of wastes, including radioactive wastes and synthetic chemicals; safe food and beverages; and adequate shelter of all types in pleasant surroundings.

The enlargement of the Board will, according to the announcement, enable the Foundation to work closely with Detroit civic, industrial and health authorities and public groups in developing what is termed a pioneering, citywide program for environmental improvement.

This program is expected to include stepping up Detroit's present work in air purification and noise abatement, as well as plans to assist the city in improved protection of water and food supplies, housing improvements, etc.

Final details of the program will be worked out in a planning "clinic," sponsored by the Foundation, to be held at a date to be announced in the near future.

It is the Foundation's hope, according to Dr. Vaughan, that the program which will emerge from the Detroit Clinic will be a "pilot study" to guide other cities interested in improving their over-all environment and thus the health and general character of the entire community.

To date the National Sanitation Foundation has been chiefly concerned with bringing industrial and health authorities together to establish superior nationally uniform sanitation Standards for food-service and other healthrelated equipment.

Through the Foundation's separately incorporated Testing Laboratory, a seal of approval is offered for all such new equipment tested and found to comply with the new Standards.

The pilot study in Detroit represents the National Sanitation Foundation's first effort to assist a major city in a program of preplanned environmental sanitation to include research and community-wide participation.

TRADE PUBLICATIONS

These trade publications will keep you up-to-the-minute on new developments in safety equipment and health products. All catalogs are free, and will be sent without obligation. Just circle publication number on the Reader Service Postcard.



- 1. Signs for Safety: Illustrated folder describes a line of safety, warning instruction, and information signs, eye hazards, machine dangers, fire, falling, first aid, general accident prevention signs, men working and special purpose signs. Sargent-Sowell.
- 2. Throat Lozenges: Anestheticantiseptic lozenges are the subject of this brochure. Their effectiveness for relieving throat irritations caused by colds, smoke, hay fever and other health hazards is discussed. The important ingredients and their action are also covered. The fact that the lozenges may be used as often as necessary is also stressed. Hynson-Westcott & Dunning, Inc.
- 3. "Everything for Safety": Catalog describes face shields, welding helmets, supersight magnifiers, skin coat liquids and creams for protection against skin infection—safety clothing, machine guards, etc. Boyer-Campbell Co.
- 4. Alloy Steel Chains: Brochure contains specifications and working load limits of Taylor-Made alloy steel chains and attachments. Taylor's sling chain service is also explained. S. G. Taylor Chain Co.
- 5. Skullgard Eyeshield: A new Skullgard Eyeshield designed for convenient cap-mounting on all types of MSA Skullgard protective headgear is featured in this bulletin No. 0302-3. The device, made of formed plastic, deflects flying particles which are hazardous to workers' eyes. The eye shield is hinged at the peak of the Skullgard so that it can be flipped down into position when protection is needed. Mine Safety Appliances Co.

- 6. Wire Rope for Logging: With illustrations and complete descriptions, wire rope for each logging need is explained in bulletin No. 5434. The purpose of this technical bulletin is to take the guesswork out of ordering logging rope and to show the particular type of rope best suited for each logging operation. Macwhyte Co.
- 7. Shock Absorbing Hook Assembly: A new shock absorbing hook assembly for overhead conveyor-truck systems, using chain and hook hitches, is featured in this circular. An eight-page bulletin illustrating 15 different models of Tow-Line trucks also included. Nutting Truck and Caster Co.
- 8. "Good Operating Practices": An illustrated 12-page brochure containing 101 suggestions for maintaining plant buildings and equipment. It contains the latest recommendations for getting the best service out of insulations, packings, refractory products, roofings and friction materials. Johns-Manville.
- 9. Tie Wire Dispenser: Designed to protect reinforcing iron workers and reduce wire waste, bulletin describes how it is useful for tying metal lathe, for insulating pipe and for bundling in warehouses and shipping rooms. Ideal Reel Co.
- 10. "Guarding Your Properties Against Flame Failure Explosions": Bulletin CP 31, is a complete non-technical explanation of the explosion dangers inherent in fuel burning equipment, and the protection now available. Bulletin describes how to determine whether your fuel burner is adequately protected against explosion and describes equipment which provides complete

- protection. Combustion Control Corp.
- 11. Bulletin Board: Circular describes cork back bulletin boards, fluorescent illuminated, custom built, outdoor directory, bulletin boards. Specifications included. R. W. Clark Mfg. Co.
- 12. Aluminized Asbestos Protective Clothing: New folder describes and illustrates aluminized asbestos protective clothing designed for industrial workers, firemen, truckers, and rescue workers. Among the items offered are hoods, gloves, coveralls, rescue suit for fire department use, and a rescue kit for truckers, police cars and ambulances. Industrial Specialties Co.
- 13. Asbestos Gloves and Mittens: Literature features a new line of asbestos gloves and mittens called "heat-foe," designed to provide protection against flames, heat and sparks. The "heat-foe" line includes regular asbestos gloves and mittens, leather palm gloves and mittens, reversible mittens and reinforced mittens. Miller Products Co., Inc.
- 14. Safety Shoes: Illustrated in this 4-page bulletin is the company's line of safety shoes. Dress shoes with steel toe caps are fully cushioned heel to toe. Comfort is emphasized in all types. Specifications and prices included. Holland-Racine Shoes, Inc.
- 15. Tools for Linemen and Electricians: Catalog No. 50 describes and illustrates company's line of tools for linemen, electricians and mechanics. Some of the items featured: pliers, clamps, climbers, belts, safety straps, leather tool belts, tackles and hand lines, etc. Sizes, specifications included. Mathias Klein & Sons.





 Maximum protection for your workers' feet is guaranteed with "Sankey" improved foot guards. Spring fastening device or rubber strap makes attachment quick and simple.

 All-day comfort without loss of efficiency is assured with this lightweight guard. Also available with full rubber sole.



 Absolute freedom of leg motion, utmost protection and comfort come with the leg-contour shaped "Sankey" fibre shin guard (left).

• Fibre knee-shin guard (right) provides flexible knee movement on jobs with both knee and shin hazards.

WRITE TODAY FOR MORE INFORMATION

ELLWOOD SAFETY APPLIANCE CO. 219 Stath St. • Ellwood City, Pa. 16. Lifters, Tables and Trucks: This 12-page catalog features a line of lifters with capacities from 500 to 2000 pounds that lift to as high as 80 inches. Offered with both hand-powered and electric hoisting unit. Includes available accessories. Also features an elevating table, trucks, drum storage racks, barrel stands. Photos, drawings and specifications. Bulletin No. 54. Economy Engineering Co.

17. Safety Tanks: Bulletin features a line of fuel tanks for vehicles. Crash resistance, spill-proof qualities, and the fact that tanks are non-explosive in fires featured. Available with various accessories and in various sizes and mountings. Schematic diagrams show construction. Approved by Underwriters' Laboratories and meets ICC regulations. American Safety Tank Co.

18. Fyr-Larm: Literature describes a new fire alarm that "screams out" on immediate heat detection of fire. The new alarm consists of a cylinder of Freon gas which is released by temperatures through a horn, creating a shrill sound. This unit is approved by the Underwriters' Laboratories. Fyr-Larm Co., Inc.

19. Grinding Wheel Guards: A line of wheel guards for flaring cup and straight cup wheels is the subject of this folder. The guard is designed to protect without cutting down visibility. It revolves with the wheel and is said to be lightweight and easy to assemble. Morrison Products, Inc.

20. Towel Bin: Safeway towel and oily rag bin is one of the safe methods for disposal and replacement of towels and oily waste rags. One section of the bin is used for clean towels or oily waste rags. The opposite section holds the soiled towels or oily rags. Bulletin gives full details. J. D. Polis Mfg. Co.

21. Floor Seal: A wood seal which protects wood floors from dirt and water damage is the subject of this booklet. Easy to apply, this sealer is available for different jobs in different forms, including enamel. Huntington Laboratories.

22. Methane Indicator: Bulletin describes portable methane indicator operating on the principle of optical projection. Allows readings to 0.1% on scale ranging from 0.0 to 0.6%. No recalibration necessary. Approved by United States Bureau of Mines. National Mine Service Co.

23. Visor Goggles: Goggles which can be worn over spectacles and which have an opaque green visor for all-around protection shown in bulletin. Goggles have curved, onepiece lenses of tinted, impact resistant plastic, and the visor is ventilated. Jones & Co.

24. Wire Rope and Chain Fittings: Illustrated catalog gives detailed information on safety clips, links, turnbuckles, hooks, sockets, thimbles, eye and ring bolts, shackles and swivels. Specifications given for all products. Thomas Laughlin Co.

25. Water Conditioning Equipment: Bulletin No. 6210 covers the entire line of water conditioning equipment and specialties. Described are: demineralizers, hot process, hot line zeolite, zeolite softeners, reactors, deaerators, dealkalizers, filters, continuous blowoff systems, hydromatic control valves, purifiers, etc. Cochrane Corp.

26. "Tuffy Braided Wire Fabric Sling Handbook": 48-page manual gives factual data on 12 sling types and on various types of sling fittings. Thirty illustrations of sling uses, step by step illustrated instructions on splicing both Tuffy Slings and wire rope. Union Wire Rope Corp.

27. Linemen's Rain Suits: Each component of complete waterproof rain suit for outdoor workers is diagrammed and described. Suits composed of jackets, pants, and hood; several types of boots are also shown. John E. Dorsey Co.

28. Zipper-Leg Overalls: Designed to eliminate "roping" overall legs, ankle elastic, buttons, tabs, and flaps to snag, bulletin features zipper leg overalls and dungarees. When zipped down, the garment leg fits snugly and safely around the ankle. Safe-Way Industries, Inc.

29. Safer Solvents: Two types of safer solvents, slow and fast drying liquids designed to clean electrical and equipment parts, are described and specifications listed in this bulletin. Features emphasized include high flash points, minimized toxicity, dermatitis freedom, corrosion freedom and ability to remove grease and oil without damage to surfaces or materials of construction. Fine Organics.

30. Abrasive Floor Plate: Abrasive rolled steel floor plate and its applications are covered in this booklet. Detailed explanation of the manufacture, specifications, fabrication and the flooring's application to plants is accompanied by illustrations and diagrams on all phases of the discussion. The flooring is designed to be long-wearing and nonslip, even on steep inclines and is approved by Underwriters' Laboratories. Alan Wood Steel Co.

Calendar Contest Winners for October

First prize in the National Safety Council's Safety Calendar Contest goes this month to Mrs. John M. Smith, Consumers Power Co., Jackson, Mich. The theme in this contest was stop accidents—think ahead. Mrs. Smith's line was adjudged the best of all those submitted. It was:

One look might have meant one less dead.

Second prize went to Mrs. Ben B. Dibrell, Oklahoma Gas & Electric Co., Ardmore, Okla., for this line:

Now she's sad, sewed and sued 'cause' she sped.

Third prize was awarded to Paul C. Crary, Special Agent, Hartford Fire Insurance, Spokane, Wash., for the following line:

Her safety views need a retread!

The October limerick was:

"Everything's so uncertain," she said,
"Why bother to think far ahead?"
Well, her driving's uncertain,
So she's headin' for hurtin'

Thirty \$5 awards were issued to: Harvey H. Hodapp, U. S. Naval Air Facility, Litchfield Park, Phoenix, Ariz. C. F. Dettman, assistant storekeeper, The Texas Co., Port Arthur, Texas.

William Burns, The Magnavox Co., Fort Wayne, Ind.

Darlene R. Demaree, secretary, Sinclair Refining Co., East Chicago, Ind.

Robert A. McDonnell, personnel manager, Keokuk Electro Metals Co., Rock Island, Wash.

Mrs. H. Muller, Danboro, Pa. (Individual Member).

A. L. Jordan, Main Post Office, Tulsa, Okla.

Mrs. M. H. Mullen, Wisconsin Telephone Co., La Crosse, Wis.

phone Co., La Crosse, Wis.

Henry Josephs, Gardenville, Pa. (Individual Member)

Mrs. Nellie Gruelle, U. S. Army Corps of Engineers, New Haven, Ind.

Henry B. Reilly, office manager, Montana Power Co., Livingston, Mont.

Roger W. Dana, inspector, Kimberly-Clark, Neenah, Wis.

Miss Ella L. Starbuck, Bedford, Mass. (Individual Member).

James E. Thom, control clerk, Consolidated Edison Co. of N. Y., Brooklyn, N. Y.

Mrs. William D. Burke, U. S. Steel Corp., Mt. Iron, Minn.

Mrs. Eleanor M. Kizer, Ball-Band Plant, Mishawaka, Ind.

Lloyd Ira Miller, Pennsylvania Power & Light Co., Allentown, Pa.

Mrs. George Lord, Central Maine Power Co., Augusta, Me.

Andy S. Thomas, Akron Fire Dept., Akron, Ohio.

George Rush, crane operator, Bethlehem Steel Co., Bethlehem, Pa. Mrs. Kenneth H. Dombey Jr., Cadillac Motor Car Div., General Motors Corp., Cleveland, Ohio.

George A. Larson, Minnesota Dept. of Highways, St. Paul, Minn.

Erwin E. Weis, Wisconsin Telephone Co., Milwaukee, Wis.

Miss Susie Mae Smith, Board of Education, Tuscaloosa, Ala. Mrs. F. A. Niver, Omaha, Nebr. (In-

dividual Member).

Edward J. Keating, Consolidated Edison Co., New York, N. Y.

Raymond W. Bursey, Dominion Steel and Coal Corp., Wabana, Bell Island, Newfoundland, Canada.

James M. Warner, Diamond Alkali Co., Edgewood, Md.

Dorris Maxwell, Thiokol Chemical Corp., Marshall, Texas.

Jack Chalmers, U. S. Steel Corp., Virginia, Minn.

Nurses to Study Industrial Medicine

The Institute of Industrial Medicine of the Post-Graduate Medical School, a unit of New York University-Bellevue Medical Center, in cooperation with the New York Industrial Nurses' Club is again offering a course in Industrial Medicine for Nurses. The course, a continuation rather than a repetition of the 1954 course, will be held from March 1 through March 31, on each Tuesday and Thursday night, beginning at 7:00 p.m.

Among those subjects to be covered will be recent advances in surgery and medicine; emergency treatment; pharmacology of new drugs; problems of the aging; emotional problems of workers; workmen's compensation and other legal problems; counseling and health education; nutrition; industrial hygiene methods and their application to plant safety; rehabilitation; dermatology; and the interpersonal relations of the nurse in industry.

Lecturers will be Medical Center faculty members and other recognized authorities in the field of occupational health. Tuition fee is \$25.

Application should be made through the Office of the Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16.

FOR CRAWLING OR DOWN ON KNEES WORK

USE J.L.S. RUBBER KNEE PADS

Price \$2.50 Pr.



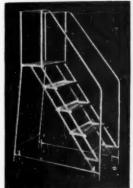
FOR CLIMBING BE SURE



WITH J.L.S. ALL RUBBER LADDER SHOE \$2.95 Pr.

Johnson Ladder Shoe Co. Eau Claire, Wis.

COTTERMAN WELDED STEEL SAFETY LADDERS For Filing Rooms—Stock Rooms—Vauits



STRONG

EASY
TO MOVE

SAFE

EASY TO CLIMB

NON-SKID

45"-5 Step

New improved design now being made from I" diam, round furniture tubing.

Mounted on Swivel Brake Casters which allow the lalder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

Made in 7 heights: — 18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in 18", 20" or 26" width. Send for Circular No. 53-N and prices on these ladders and our full line of Wood Rolling Ladders.

Manufactured by

I. D. COTTERMAN

4535 N. Ravenswood Ave. Chicago 40, III.

COMPLETE PROTECTION AGAINST ATHLETE'S FOOT

at moderate cost!

ALTA-CO POWDER

Refinements and improvements now make ALTA-CO more quickly soluble, more agreeable generally and better to handle. Dissolved economically in water for the all-important foot bath, ALTA-CO kills in less than a minute all different species of fungi commonly found in Athlete's Foot. Non-irritating; harmless to towels.

ALTA-CO FOOT POWDER

For dusting feet after shower or other exposure to moisture.

H. D. FUNGICIDE FLOOR WASH

Diluted I to 300 in water, this powerful wash provides additional protection against Athlete's Foot on surfaces where fungi are commonly found.

Ask your DOLGE SERVICE MAN about meney-saving offer on the DOLGE FOOT TUB.

FOR

FREE SANITARY SURVEY OF YOUR PREMISES

SEE YOUR DOLGE SERVICE MAN rendable

WESTPORT, CONNECTICUT

At Last!

A FOOLPROOF CONTINUOUS **AUTOMATIC AUDIO** MESSAGE REPEATER



Universal "300" **AUDIO VENDOR**

For use with any tape recorder and sound complifier.

Ideal as an always-on-the-job automatic warning system. Can be activated by "magic eye," floor mat or driveway hose. The speaker can be located in the most effective spot. Truck drivers can be warned of pedestrians, low overheads and sharp turns. Punching a time clock can remind workers to don safety goggles. Fire doors can be made to on-smoking areas can be ordered to put out cigareties. In automation, a recorded series of frequency notes trips relays and activate electronic controls in proper sequence for automatic operation of machinery. The tapes carrying these recorded frequencies can be filed for future use, thereby saving much time in setting up and breaking down intricate control operations involved in mechanical settings.

citizate control operations of the control of the city of the city

Write for free brochure, price list.

••••••

COUSINO, INC.

Advertisers' Index

A
Admatic Corp. 85 Alan Wood Steel Co. 67 Albina Engine & Machine Works 88 American Abrasive Metals Co. 62 American Chain & Cable Co., Inc. 51 American LaFrance-Foamite Corp. 6 American Optical Co. 8.C. American Rubberizing Co. 79 American Rubberizing Co. 57 Ampo Metal, Inc. 4 Arabian American Oil Co. 114 Award Incentives 76
В
Baker-Roos, Inc. 78 Bausch & Lomb Optical Co. 7 Benson & Assoc., Inc. 96 Berhlehem Steel Co. 14 Brossard, Lester L., Co. 95 Brulin & Co., Inc. 74 Buckley Corp. 91 Bullard, E. D., Co. 84
C
Chicago Eye Shield Co. 1.B.C. Chicago Watchclock Co. 77 Columbus McKinnon Chain Corp. 69 CMC Company 15 Coppus Engineering Co. 8 Corbin-Cabinet Lock Div. 71 Cotterman, I. D. 113 Co-Two-Pyrene 55 Cousino, Inc. 114 Cover, H. S. 85
D
Davenport, A. C., & Sons, Inc. 88 Detex Watchclock Corp. 79 Dolge, C. B., Co. 114
E
Economy Engineering Co. 92 Ellwood Safety Appliance Co. 112 Estwing Mfg. Co. 95
Far Ex Corp
G
Globe Co. 83 Gro-Cord Rubber Co. 45
Hood Rubber Co
Industrial Gloves Co. 81 Industrial Products Co. 83
Jackson Products, Inc
К
Kennedy, V. E., Ingalls Co. 92 Kidde, Walter, & Co., Inc. 43 Kimberly-Clark Corp. 49
Legge, Walter G., Inc. 61 Lowery Brothers 47
M Macwhyte Company 10 McAn, Thom, Safety Shoes 3 McDonald, B. F., Co. 90 Medford Mfg. Co. 109 Medical Supply Co. 89 Merrill Brothers 89 Mine Safety Appliance Co. I.F.C.
N

National Foam System, Inc. 9 National Safety Council.....59-9*-98-99-100

O	
Onox, Inc	
P	
Patent Scaffolding Co., Inc. 73 Pennsylvania Optical Co. 13 Prairie State Products Co. 94 Pyrene-C-O-Two 55	
R	
Rockwood Sprinkler Co 11	
S	
Safety First Supply Co. 81 Safety Tower Ladder Co. 87 Scott Aviation Corp. 53 Sellstrom Mfg. Co. 93 Standard Safety Equipment Co. 72-94 Stephenson Corp. 86 Stonchouse Signs, Inc. 12 Surrey Rubber Co. 91	
Т	
Tamms Industries, Inc	
U	
Union Wire Rope Corp	
W	
Welsh Mfg. Co. 5 Wheeler Protective Apparel 86 Wiesman Mfg. Co. 110 Wilson Products, Inc. 1	

SAFETY ENGINEER Foreign Service

Minimum 8 years accident prevention experience-4 years with insurance carrier, balance in drilling or oil field operations. Degree or equivalent training plus familiarity with oil handling codes required. Salary commensurate with training and experience.

Write giving full particulars regarding personal history and work experience. Please include telephone number.

Recruiting Supervisor Box 36 Arabian American Oil Co. 505 Park Avenue

New York 22, N. Y.

Want More Information?

. . . the Reader Service postcard will get it for you FAST!

Here's how it works-

Printed below are two identical Reader Service postcards—the bottom one for your use; the top one for later readers of this issue. The numbers listed on each card are keyed to products advertised and the new safety equipment and trade publications described on

pages 103 through 112. Just circle the items you want to know more about, and we will ask the manufacturer to send you full information without obligation. Both cards are perforated for easy removal, and no postage is required.

New Safety Equipment

Products featured in this section have been carefully reviewed by Council engineers so as to bring you only what's new and reliable in the safety field. Only new safety and health products, or newsworthy improvements in existing equipment are eligible for listing.

Trade Publications

Here's a wealth of helpful trade literature—catalogs, spec sheets, booklets, brochures—that will help you compare before you buy. Whether you are in the market now, or think you may be at a later date, you'll want these valuable references in your safety equipment data

Products Advertised

As you read through this issue of the NEWS, you will find advertisements describing equipment that may help you solve some of your accident problem. Instead of . making a "mental note," make sure you get full information by circling the corresponding page number on the Reader Service postcard. The letters L. R. T and B locate the ads on the page-left, right, top and bottom. IFC-inside front cover: IBC-inside back cover; BC-back cover.

IMPORTANT—Be sure to fill in your name, organization and address in the space provided on the reverse side of the postcard.

NATIONAL SAFETY NEWS: Please send me more information on the items circled below: NEW SAFETY EQUIPMENT SECTION:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 2 2 4 6 8 10 12 14 16 18 20 22 24 26 28 3 TRADE PUBLICATION SECTION:
1 3 5 7 9 11 13 15 17 19 21 23 25 27 2 2 4 6 8 10 12 14 16 18 20 22 24 26 28 3 TRADE PUBLICATION SECTION:

3 9 41 47 49 51 53 54 61 62 71 72 73 74 75 76 77 78 79T 79E SIT RIR EST BIR SST 115B 86L SER 87L 87R SET 222 93R SIT 94R 951. 114LT 114LB 111R

NATIONAL SAFETY NEWS:

DEC. 1954 (Good until Feb. 28, 1988)

DEC. 1954

d until Feb. 28, 1955

Please send me more information on the items circled below

NEW SAFETY EQUIPMENT SECTION:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 2
2 4 6 8 10 12 14 16 18 20 22 24 26 28 3

TRADE PUBLICATION:

1 3 5 7 9 11 13 15 17 19 21 23 25 27 2
2 4 6 8 10 12 14 16 18 20 22 24 28 28 3

PRODUCTS ADVERTISED:

41 43 45 49 51 53 54 55 57 47 59 61 62 63 69 75 71 72 73 74 75 76 77 78 83 M SST 25R SEL. BGR 87L 87R BRT 291. SIT 22R 921 93L 94T 94B 95L 93R 113B 114LT 114LB 114R

National Safety News, December, 1954

The advertising pages of the News

... your guide to reliable suppliers of worthwhile safety equipment

The advertising policy of the NEWS requires that all equipment and products meet established codes and standards, have the approval of recognized testing agencies, or have proven their value through actual use in industry. Council engineers and technicians screen every

advertisement to make sure that product description is accurate, and performance claims verified by reliable sources. It should not be construed, however, that products advertised are approved or endorsed by the National Safety Council.

FIRST CLASS PERMIT No. 834 Sec. 34.9, P. L. & R. CHICAGO, ILL.

BUSINESS REPLY CARD

No Postage Stamp Heccessary If Mailed in the United States

4c - POSTAGE WILL BE PAID BY -

Reader Service Department

NATIONAL SAFETY NEWS

425 NORTH MICHIGAN AVENUE CHICAGO 11, ILLINOIS

POSITION

COMPANY

ADDRESS

CITY & STATE

FIRST CLASS PERMIT No. 834 Sec. 34.9, P. L. & R. CHICAGO, ILL.

BUSINESS REPLY CARD

No Postage Stamp Necessary If Mailed in the United States

4c-POSTAGE WILL BE PAID BY-

Reader Service Department

NATIONAL SAFETY NEWS

425 NORTH MICHIGAN AVENUE CHICAGO 11, ILLINOIS



Before you mail your Reader Service postcard . . .

TAKE ANOTHER LOOK AT

- the ADVERTISING pages
- the NEW SAFETY
 EQUIPMENT section
- the TRADE PUBLI-CATION section



Make sure all the items you want to know more about are circled . . . check to make sure your name, organization, and address are printed on this side of the postcard . . THEN mail it today.

National Safety News, December, 1954

CESCO

Auxiliary Filters PREVENT CLOGGING OF CARTRIDGES



Auxiliary cellulose filters, now available for the CESCO No. 99 ORGANIC VAPOR RESPI-RATOR, prevent the clogging of cartridges during paint spraying operations. Together with the dual 85 cc cartridges they provide high absorptive capacity and low resistance to breathing.

These low-priced filters are easily attached by merely unscrewing the cartridge retaining ring. Filter pad and retainer are placed over cartridge, and ring is screwed back on. It's quick, and no tools are required.

The "double-duty" CESCO No. 99 Respirator has a soft rubber facepiece which provides a snug, leakproof fit with minimum headband tension. Eye protection may be worn conveniently as the respirator sets low on the face.

Order from your nearby CESCO safety equipment distributor or write us for further information.

CHICAGO EYE SHIELD COMPANY - 2306 Warren Boulevard, Chicago 12, Illinois



CESCO FOR SAFETY

Why You Need Professional Services at Every Step

to make your Eyecare Program Produce!

In your plant, you would hesitate before placing a lathe operator at a drawing board or a draftsman at a lathe. In this age of specialization, each to the job he does best.*

However, in industrial prescription eyecare, there have been occasions where ALL the necessary services have not been performed by the only people competent to perform them - the specialists in eyecare. In these instances, industry has not received the maximum benefits of a visual correction program which can only come when the safety prescription glasses are verified, correctly positioned and comfortably fitted by a professional specialist. These professional responsibilities are as necessary as the earlier steps of professional examination, refraction and prescription.

Corrective-protective glasses made by American Optical Company meet all safety requirements. Super Armorplate lenses carry this mark 10 indicating that they are heat-strengthened and meet rigid specifications for thickness and impact resistance. Frames are made of corrosive-resistant metal or



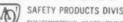
non-flammable plastic and are designed to provide the finest in safety equipment. They also carry the 10th trademark. Always look for it!

You as Safety Director know the value of adequate professional services in prescription eyecare and the high quality standards maintained by AO in the manufacture of lenses and frames. Visual safety programs under your



supervision will pay off to the greatest degree in accident prevention, improved worker output and lowered costs when you combine the complete services of eyecare specialists with the finest in eyecare materials.

*Safety is our business — and the business of Industry. Examination, refraction, verification and the fitting of prescription glasses are the responsibilities of the professions.



OCTOBER 1953 TO OCTOBER 1954

FARM WHAT'
HOME
TRAFFIC
SCHOOL
SCHOOL
OCCUPATIONAL
OCCUPATIONAL
IN

National Safety Council Services

WHAT'S NEW

in National Safety Council Services

is published to assist Council members in both the occupational and public safety fields in reviewing the publications and materials released since October, 1953.

Member prices for series type publications such as Data Sheets, Safety Instruction Cards, Safe Farm Practices Leaflets, may be found in the current Service Guides—

Occupational — Service Guide 2.1
School — Service Guide 2.3
Traffic — Service Guide 2.4
Farm — Service Guide 2.5
Home — Service Guide 2.6

Council publications are approved for purchase by Federal Government activities. Requests for the current Federal Supply Schedule Contract Price List, Service Guide 2.1F, should be addressed to the Service Contract Bureau, National Safety Council.

Industrial

Progress and new developments in industrial safety are reported in the monthly NATIONAL SAFETY NEWS and the 27 industrial monthly Section Newsletters. Accident experience is summarized in the annual publication, ACCIDENT FACTS, and in the 15 individual industry Accident Rates Pamphlets.

ADMINISTRATIVE

PLUS COSTS OF ACCIDENTS

Explains how any businessman can eliminate the causes of accidents, boost efficiency and lower both the direct and indirect costs of doing business. Shows how safety follows when you put common-sense principles to work. Lists 7 easy-to-follow steps to take in establishing a safety program. 2-colors, illustrated throughout. 8 pages, 6"x9". 1-9 copies, \$.20 each; 10-99, \$.15; 100-999, \$.08; 1,000-4,999, \$.07; 5,000 or more, \$.065.

SAFETY DEVICES AND IDEAS

90 safety devices which have been tried and found effective in plant use are presented in this book. Most of the devices were thought up and constructed by plant personnel and are not commercially available. Each is fully described and illustrated by photographs. 48 pages, 81/2"x11". 1-9 copies, \$1.25 each; 10-99, \$1.00; 100-999, \$.90; 1,000 or more, \$.85.



Industrial

THE WOMAN ON THE JOB

A new survey on the health and safety problems of women in industry. Accidents and occupational diseases, gynecological and other physical problems, job clothing, placement, are some of the important subjects. Green and pink hard cover book with illustrations. 96 pages, 6"x9". 1-9 copies, \$2.50 each; 10-99, \$2.00; 100-999, \$1.90; 1,000 or more, \$1.80.

HOW TO START A SAFETY PROGRAM

Defines the organization of a simple and economical safety program. Explains how to get hold of accident problems—not the engineering details but the management of an efficient program. Describes what to do first to control such problems as health, personal injuries. Applicable to any kind of business enterprise, regardless of size. 48 pages, 41/2"x7". 1-9 copies, \$.75 each; 10-99, \$.60; 100-999, \$.50; 1,000 or more, \$.40.

ASSOCIATED GENERAL CONTRACTOR'S MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION

New revised edition illustrates the safe way of performing construction jobs and emphasizes the costly results of unsafe practices. Included are new sections on welding, power saws, flammable gases and liquids. Numerous photographs, drawings and charts have been added. Hard cover. 258 pages, 61/4"x91/4". \$3.00 each.





SAFETY IN QUARRY OPERATIONS

This completely revised authoritative manual provides all the basic information for setting up and operating an effective safety program in the quarry and related "open pit" industries. Discusses safety organization, accident investigations, drilling, storage, and use of explosives, etc. 48 pages, 6"x9". 1-9 copies, \$1.25 each; 10-99, \$1.00; 100-999, \$.90; 1.000 or more. \$.80.

JIG AND FIXTURE DESIGN FOR WOODWORKING SAFETY

An extremely comprehensive book for supervisors dealing with all types of woodworking jigs and fixtures that enable operators to work with more efficiency and greater safety. Provides a complete description of the various kinds of jigs and fixtures and gives precise instructions on how to use and build them. Includes 61 drawings. 8½"x11". 1-9 copies, \$1.75 each; 10-99, \$1.50; 100-999, \$1.20; 1,000 or more, \$1.10.

1,000 SAFETY BELL RINGERS

A brand new edition containing 1,000 safety slogans, catchy phrases to use in safety talks, slogans to pep up a safety program, the right saying to help put across an idea. Divided by subjects such as school, fire prevention, etc. 32 pages, 6"x9". 1-9 copies, \$.35 each; 10-99, \$.29; 100-999, \$.23; 1,000-4,999, \$.23.



Industrial

DETAIL SHEETS

No. 143 Heavy Duty Tow Bar No. 144 Bin Safety Platform No. 145 Veneer Clipper Guard No. 146 Feather Board

DATA SHEETS

D-236 Power Actuated Hand Tools
D-248 Emergency Lighting
D-251 Anhydrous Ammonia
D-262 Safety Specifications for Locomotives in
Coal Mines
D-270 Nitrate-Nitrite Salt Baths for Heat Treating
D-287 Grounding Electric Shovels, Cranes, and Other
Mobile Equipment
D-319 Radio Frequency Heating
D-321 Explosives Splitting Wedges or Guns
D-345 Lumber Handling and Piling
D-353 Radial Saw
D-354 Paper Tube Winders
D-356 Corrugators

SAFETY REPRINTS

No. 46 Eye Injuries (Kuhn)
No. 47 Thirsty Granules
No. 48 Placement, Not Exclusion
No. 49 Look Out for Office Accidents
No. 50 Evaluation of Vibration Waves Due to Blasting
No. 51 What Does It Cost—How Much Does It Save?
No. 52 An Industry Headache
No. 53 Facts and Fallacies About Your Eyes
No. 54 Volts and Jolts
No. 55 Skin Trouble Is Plenty Trouble
No. 56 Safety in Canning Industry
No. 57 Applied Engineering Principles Reduce
Costly Accidents

SUPERVISOR TRAINING

The backbone of the Council's array of foreman training aids is the monthly INDUSTRIAL SUPERVISOR magazine which is dedicated entirely to assisting supervisors in meeting their safety responsibilities more effectively.

30 TAILBOARD TALKS

A guide for use in preparing short safety talks for electric and telephone linemen, gas and water company crews. Covers such subjects as pole-climbing, customer service, meter installation, etc. Illustrated. 72 pages, 81/2"x11. 1-9 copies, \$1.70 each; 10-99, \$1.50; 100-999, \$1.45; 1.000-4,999, \$1.35.

PSYCHOLOGY AND THE SUPERVISOR

The series of articles by Dr. J. L. Rosenstein that appeared in the INDUSTRIAL SUPERVISOR was so popular that it has been reprinted in booklet form. The book discusses the basic motivations of human nature—fear, worry, personality problems, etc. Written in an entertaining style, illustrated. 32 pages, $51/2^{"}x81/2"$. 1-9 copies, \$.60 each; 10-99, \$.40; 100-999, \$.35; 1,000 or more, \$.30.



Industrial

EMPLOYEE TRAINING

Three magazines — the SAFE WORKER, SAFE RAILROADER, and the new SAFE BUILDER —are published monthly to assist you in keeping your employees safety-reminded throughout the year.

VACATION DAZE

An attractive and readable off-the-job booklet that humorously illustrates how to avoid vacation accidents—on the road, in the country, near water, and at home. 4 colors. 8 pages, 37/8"x8". 1-9 copies, \$.12 each; 10-99, \$.07; 100-999, \$.06; 1,000-4,999, \$.045; 5,000-9,999, \$.04.

CLOSE CLEARANCE

A collection of all-time favorite Sid Hix cartoons from the SAFE RAILROADER. This is an unusual attitude builder to pep up safety meetings—a popular favor at company parties. 32 pages, 4"x5". 1-9 copies, \$.20 each; 10-99, \$.15; 100-999, \$.11; 1,000-4,999, \$.09; 5,000-9,999, \$.085.

A l'ABRI (IN THE CLEAR)-French Edition

Tells how to prevent accidents in the logging industry. Warns against such hazards as slipping, falling trees, improper handling of materials and accidents due to saws, axes, moving machinery. 2-color. 8 pages, 4½"x8". 1-9 copies, \$.15 each; 10-99, \$.08; 100-999, \$.06; 1,000 or more, \$.05.



REALLY STACKED

Gives the basic rules for the safe handling of materials. Clearly shows with simple diagrams and easy-to-understand directions how to pile and store materials. Includes directions on how to store odd shaped pieces, how to cross-tie. 2-color. 16 pages, 3"x5½". 1-9 copies, \$.12 each; 10-99, \$.07; 100-999, \$.06; 1,000-4,999, \$.045; 5,000-9,999, \$.04.

WHAT'S IN IT FOR ME?

A brand new booklet that points out to the worker the personal advantages of practicing safety. Proves that it's not where he works but how he works that makes for good safety records. Humorous illustrations, serious text. Full color. 16 pages, 4"x9". 1-9 copies, \$.20 each; 10-99, \$.10; 100-999, \$.08; 1,000-4,999, \$.06; 5,000-9,999, \$.055.

10 COMMANDMENTS OF SAFETY IN MACHINE OPERATION

An attractively designed list of the ten most fundamental safety rules for machine operators. Printed in 2 colors on light card stock. 4"x7". With each 100 ordered, one 9½"x10¾" card is included (free of charge) for display in shop. Small size: 1-9 copies, \$.10 each; 10-99, \$.05; 100-999, \$.03; 1,000-4,999, \$.02; 5,000-9,999, \$.018. Large size: 1-9 copies, \$.30 each; 10-99, \$.25; 100-999, \$.20; 1,000-4,999, \$.18.



Industrial

A THREE DAY WEEKEND

Tells your employees that you want their Labor Day weekend to be full of fun—but that you want them to come back to the job safe and sound. 2-color. 4 pages, 3"x5½". 1-9 copies, \$.15 each; 10-99, \$.05; 100-999, \$.025; 1,000-4,999, \$.015; 5,000-9,999, \$.014.

THANKS FOR A SAFE YEAR

A holiday leaflet that expresses to your employees thanks for working safely and a wish that the coming year will also be a safe one. 2-color. 4 pages, 3"x51/8". 1-9 copies, \$.15 each; 10-99, \$.05; 100-999, \$.025; 1,000-4,999, \$.015; 5,000-9,999, \$.014.

HAVE A HOLIDAY

A holiday send-off leaflet that docs double duty—expresses warm holiday wishes and reminds workers to return to the plant safe and sound both at Christmas and New Years. Cleverly illustrated in 2 colors. 4 pages, 3"x5½". 1-9 copies, \$.15 each; 10-99, \$.05; 100-999, \$.025; 1,000-4,999, \$.015; 5,000-9,999, \$.014.



WATCH OUT FOR WIRES

Explains the danger of fallen or dangling overhead wires—what to do about them and how to guard against exposed wires. Also describes the safe way to help a person who is in contact with a live wire. 3 fold leaflet in 2 colors. 35/8"x81/4". 1-9 copies, \$.10 cach; 10-99, \$.05; 100-999, \$.025; 1,000-4,999, \$.02; 5,000-9,999, \$.019.

CRANE CONTACTS KILL

New booklet that warns against the fatal accidents that can result from crane booms, draglines, and other heavy equipment hitting high voltage power lines. 6 pages, 33/4"x81/2". 1-9 copies, \$.12 each; 10-99, \$.07; 100-999, \$.05; 1,000 or more, \$.04.



OVERSIZE CRANE STICKER

An oversize (4"x7") crane sticker that carries the message "DANGER—Keep Clear of Electric Lines." Stickers have pressure-sensitive backs that can be applied to any surface in a matter of seconds. 1-9 stickers, \$.18 each; 10-99, \$.10; 100-999, \$.08; 1,000 or more, \$.07.

Industrial











ACCIDENT PREVENTERS

A brand new series of employee training tools. Each pamphlet in the series pinpoints a specific operation or practice. Humorous cartoca cover, crammed packed with illustrations and information. Printed in 2 colors. 4 pages, 3"x5". The first 5 subjects are:

No. 101 Lift Safely

No. 201 Housekeeping Prevents Fire

No. 301 Wear Safe Clothes

No. 401 Get First Aid Fast

No. 501 The Four Principles of Hand Tool Safety 1-9 copies, \$.10 each; 10-99, \$.05; 100-999, \$.025; 1,000-4,999, \$.02; 5,000-9,999, \$.019.

SAFETY INSTRUCTION CARDS

No. 707 Standard Railroad Signals (Hand, Flag, & Lamp)

No. 708 Handling Chipper Knives

No. 709 Explosive Wedges or Guns (Preparations for Firing)

No. 710 Explosive Wedges or Guns (Handling Explosives)

No. 711 Explosive Wedges or Guns (General Precautions)

No. 712 Towing Aircraft

No. 713 Taxiing Aircraft

No. 714 Jacking Airplanes

No. 715 Mobile Ramp Equipment No. 716 Aircraft Portable Work Stands and Ladders

No. 717 Hangar Housekeeping

No. H-178 Wet Mopping

No. H-179 Pick Up or Clean Up Before You Slip Up

No. H-180 Cutting Tools

No. H-181 Don't Mix Oxygen and Oil No. H-182 Something on the Floor?

No. H-182 Something on the Floor? No. H-183 Go Slow

No. H-184 Pharmacists! Check Labels Twice

No. H-185 Elevator Doors

Safetygraphs



#25 TWO-WHEEL HAND TRUCKS

Shows the correct use and handling of a two-wheel hand truck. Discusses how to load and unload materials, difficult loads, the proper way to lift materials, careful procedure at corners and proper handling on inclined surfaces.

#26 HOW TO CONTROL BLEEDING

The latest techniques for stemming capillary venous and arterole bleeding. Includes the latest research by the Committee of Medicine of the National Research Council.

#27 FIRST AID TREATMENT FOR BURNS

Discusses what to do for burns, frost-bite, radiation and electric burns, as well as chemical burns of the eye and skin.

#28 TRANSPORTATION OF INJURED PERSONS

Covers examination of conscious and unconscious persons to determine spine or neck injuries, use of common industrial equipment to transport injured persons.

Industrial

Posters

22 new occupational posters, including the monthly Jumbo and "C" posters, are shown monthly in the Poster Section of the NATIONAL SAFETY NEWS. The complete DIRECTORY OF OCCUPATIONAL SAFETY POSTERS, illustrating 744 posters, is published annually.



LOGGING POSTERS Available in English and French

Paul Bunyan joins the fight against accidents in this all-new set of posters by premoting the use of hard hats, safety shoes, and other protective clothing and equipment. Printed on extra heavy stock for outdoor posting. Available in sets of 12. 8½"x11½". 1-9 sets, \$2.50 each; 10-49, \$2.25; 50-99, \$2.10; 100-499, \$1.95; 500 or more, \$1.80.



CONSTRUCTION POSTER SETS

Introducing Mel Onhead, the prize melon head who stars in a new poster series created especially for construction workers. He makes workers chuckle but also teaches them how to stay safe on the job. Printed in red and black on heavy card stock for outdoor posting. Available in sets of 12. Each poster 8½"x11½". 1-9 sets, \$2.50 each; 10-49, \$2.25; 50-99, \$2.10; 100-499, \$1.95; 500 or more, \$1.80.

PRINTING AND PUBLISHING SECTION POSTERS

A unique set of posters designed specially for the printing industry and aimed specifically at pressroom hazards. Printed in 2 colors, each 8½"x11". Available only in sets of 12. 1-9 sets, \$2.00 each; 10-99, \$1.85; 100 or more, \$1.75.

POWER LINE POSTER

This poster carries the easily remembered message "Keep Boom Clear—Electrical Contacts Kill." For posting in construction shacks or on outdoor bulletin boards to alert workers before they start to work. 1-9 copies, \$.12 each; 10-99, \$.07; 100-999, \$.05; 1,000 or more, \$.04.

Industrial

Films

ALL OUT FOR SAFETY

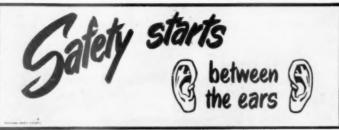
Story of what happens to Supervisor O'Grady when he attends a safety conference. He learns the value of meeting with others in his field, seeing new devices and ideas which will profit him, and sees that other people have similar problems, and how they solve them. Black and white, 15 minutes. 35mm sound slidefilm (Class I Film) or 16mm sound motion picture (Class V Film). Class I Film: Single copy, \$20.50; 2-9, \$19.50; 10 or more, \$18.40. Class V Film: Single copy, \$53.00; 2-9, \$50.00; 10 or more, \$47.00.

BAR IT DOWN

Deals with the special hazards found in most mining operations—falling rock or ore from drifts, stopes, and similar openings. Illustrates barring down under timber protection, using different length bars for different operations, standing clear of loose materials. Silent filmstrip, color. 35mm (Class II Film). Single copies, \$14.50; 2-9, \$13.70; 10 or more, \$12.90.

IF YOU TOOK YOUR FAMILY TO WORK

Proves that a worker's family plays an important part in his attitude towards safety on the job—that he should practice safety on the job just as though his family were with him. 13 minutes. Black and white. 35mm sound slidefilm (Class I Film) or 16mm sound motion picture (Class V Film). Class I Film: Single copy, \$20.50; 2-9; \$19.50; 10 or more, \$18.40. Class V Film: Single copy, \$53.00; 2-9, \$50.00; 10 or more, \$47.00.



SAFETY BANNERS

Here's a brand new item that you're sure to be enthusiastic over—safety banners $3\frac{1}{2}$ feet high by 10 feet long! Made of heavy cloth, these bright, multicolored banners are available for indoor and outdoor use. Each carries a safety slogan and illustration of a general nature, making them applicable for use in any part of the plant. Available soon on monthly subscription basis. Watch for announcement!

HOSPITAL

The Council, in cooperation with the American Hospital Association, sponsors a Hospital Safety Service, including specialized posters, instructional materials for personnel training and information for administrators. Information on request.

Motor Transportation

Progress and new developments in the commercial vehicle and transit industries are reported monthly in PUBLIC SAFETY MAGAZINE and the newsletters of these two Sections.

DRIVER LETTERS

Special Editions for Bus Drivers and Salesmen

Monthly informal reminders for drivers on specific accident hazards. Each letter covers a normal or seasonal high frequency accident. Lithographed on standard size letterhead.

SAFE DRIVER

New Editions for Bus Drivers and Salesmen

The ever-popular SAFE DRIVER magazine is now available in special editions specially written for bus drivers and salesmen. 2-color. 8 pages, 33/8"x57/8".

DASH STICKERS

Bright 4-color safety ads with carefully chosen subject matter, designed to keep drivers on their toes. Equally effective for truck drivers, bus operators or passenger cars. Adheres to any type surface. Available only in sets of 12—each one different. Each 3"x6". 1-9 sets, \$.75 per set; 10-99, \$.60; 100-999, \$.50; 1,000 or more, \$.47.

NEW AUTOMATIC POSTER SERVICES

The automatic poster service has been expanded to include the following categories; city truck, intercity truck, sales truck, truck terminal and bus terminal.



SAFE WINTER DRIVING FACTS FOR TRUCK DRIVERS— Winter 1954-1955 Edition

An all new non-technical booklet for truck drivers summarizing the facts about winter driving problems and suggestions for meeting them. 2-color. 28 pages, 33/4"x81/2". 1-9 copies, \$.20 each; 10-99, \$.15; 100-999, \$.11; 1,000-4,999, \$.085; 5,000 or more, \$.08.

PASSENGER SAFETY

A new driver training booklet that shows bus drivers how they can prevent boarding, alighting, and on-board accidents. Covers skills and attitudes that safeguard the rider from the time he steps off the curb to board the bus until he has safely alighted. 2 colors. 24 pages, 3"x5". 1-9 copies, \$.20 each; 10-99, \$.12; 100-999, \$.09; 1,000 or more, \$.065.

REACTION TIMER

A novel way to focus attention on reaction time. Shows drivers how important it is to know proper braking distance, makes him aware of his own reaction time. Printed in 2 colors on light card stock. 3"x113/4". 1-9 copies, \$.20 each; 10-99, \$.07; 100-999, \$.035; 1,000-4,999, \$.025; 5,000-9,999, \$.022.



Public Safety

Progress and developments in the various fields of public safety are reported in four magazines — PUBLIC SAFETY (traffic), SAFETY EDUCATION (schools), FARM SAFETY REVIEW and HOME SAFETY REVIEW.

TRAFFIC

MAC HINES-TROOPER

An unusual comic-type traffic safety booklet that forcibly illustrates how and why accidents happen and some of the things that can be done to help avoid them. Every worker who sits behind the wheel of a car should have a copy of this booklet for himself, and especially for the teen age drivers in his family. 4 colors. 16 pages, 6½"x10½". 1-9 copies, \$.20 each; 10-99, \$.10; 100-999, \$.06; 1,000-4,999, \$.05; 5,000-9,999, \$.047.

ANDY LARKIN

Andy Larkin, veteran ambulance driver shows a newcomer how to drive safely in this brand new comic book. 4-color. 16 pages, 63/4"x10". 1-9 copies, \$.20 each; 10-99, \$.10; 100-999, \$.06; 1,000-4,999, \$.05; 5,000-9,999, \$.047.





HIGHWAY ZOO

A clever animal cartoon booklet. These hilarious characters point out driver faults common to today's traffic. Ideal for off-the-job safety programs. 4-color. 16 pages, 37/8"x8". 1-9 copies, \$.10 each; 10-99, \$.07; 100-999, \$.05; 1,000-4,999, \$.04; 5,000-9,999, \$.035.

HERE ARE WINTER FACTS FOR PASSENGER CAR DRIVERS— Winter 1954-1955 Edition

Booklet especially for passenger car drivers giving facts and suggestions for dealing with winter driving hazards. 2-color. 16 pages, 33/4"x81/2". 1-9 copies, \$.15 each; 10-99, \$.10; 100-999, \$.07; 1,000-4,999, \$.05; 5,000 or more, \$.045.

REVISED PUBLIC SAFETY MEMOS

No. 93 Motor Vehicle Traffic Deaths & Death Rates in Cities—1942-1952 No. 113 Estimating the Costs of Accidents

Public Safety

Operation Safety



Why Do the Bells Ring?
Bad Actors of '54—Suzie Skidmore
Bad Actors of '54—Felix Fixit
Bad Actors of '54—Flora Fluster
Bad Actors of '54—Sammy Sorehead
Bad Actors of '54—Helpless Hattie
Bad Actors of '54—Hotshot Harry
Now's the Time to Enjoy Yourself
Now's the Time to Read and Heed
Now's the Time to Live
Now's the Time to Be the First Man
Now's the Time to Watch Out for Walkers
Now's the Time to Say No

DAY-GLO DASH STICKERS

Another "bright idea" in safety—dash stickers in black and brilliant Day-Glo fire orange with "Stay Alert—Stay Alive!" message that constantly reminds drivers to drive with caution. 4"x1½". 1-9 copies, \$.10 each; 10-99, \$.06; 100-999, \$.04; 1,000 or more, \$.035.

HOME

OFF-THE-JOB SAFETY KIT

A kit designed primarily for use by industries in educating workers and their families on off-the-job safety. Contains leaflets, posters, fact sheets, planning guides and program suggestions aimed at home, traffic and public safety. \$1.00 each.

CHILD ACCIDENT FACTS

Graphic national figures on the total accident deaths annually among children under 15 years of age, according to cause. 1 page, 81/2"x11". 1-9 copies, \$.02 each; 10-99, \$.012; 100-999, \$.009; 1,000 or more, \$.006.

HOME SAFETY NEWSLETTER

A newsletter about public health activities for the prevention of home accidents. Issued bi-monthly. 4 pages, $8\frac{1}{2}$ "x11". Single copy free.



A NATIONAL PROGRAM FOR PREVENTING HOME ACCIDENTS

A report on home accidents—who gets hurt and how, what is being done about home accidents and the progress that is being made to curtail them. 2-color. 16 pages, 11"x81/2". Single copy free.

Public Safety

SCHOOL

SAFETY EDUCATION REPRINTS

Make Safety Their Responsibility Too 1954-55 Secondary Lesson Units to Stress Fundamentals Let's Look at Some Figures Morale for Safety Prom Night Roundup for Bike Safety Sentenced to School? What Is Our Problem? Who Drives Your School Bus? A Way Around Barriers to Safety Education How Can Safety Education Be Improved? The Safety Story Second National Conference Maps the Route of Driver Education Improvement The National School Safety Honor Roll-Does It Help? Check List for Safety in School Construction Necessity Is the Mother of Prevention Safety Goes to College What Is A Good Safety Program? 7 Areas of Consideration for Playground Safety Boys and Girls Together? It's Elementary but Not Simple Now We Can Teach Judgement Teaching Safety Day by Day East Providence Protects Against Fire Current Practice on Adult Crossing Guards Make Room for Driver Education Organize Future Patrols Now Science for Sitters What Did I See? There Ought NOT to Be a Law Youth Speaks Out and Acts The Plus and Minus of Safety Education

SAFETY EDUCATION DATA SHEETS

No. 61 Floors in the Home No. 62 Hazards of Discarded Iceboxes and Refrigerators

FARM

DO'S AND DON'T OF LADDER SAFETY FOR HOME AND FARM

A checklist type leaflet that shows right and wrong ways to use a ladder. 8 pages, 31/2"x9". 1-9 copies, \$.06 each; 10-99, \$.029; 100-999, \$.017; 1,000 or more, \$.017.

FARM SAFE PRACTICE LEAFLETS

Home Made Electric Fence Devices are Death Traps Electric Fence Problems Accidents and Family Relationships

A DECADE OF FARM SAFETY

A report on the progress of farm safety—"from infancy to adulthood"—in 10 years. 4 pages, 5½"x 8½". 1-9 copies, \$.06 each; 10-99, \$.029; 100-999, \$.017; 1,000 or more, \$.017.



ACCIDENT FACTS

Complete and authoritative roundup of statistics on accidents in every field of safety. Contains 96 pages of information on the accident picture for the previous year. Easily understood charts and graphs throughout. 6"x9". 1-9 copies, \$.75 each; 10-99, \$.65; 100-999, \$.55; 1,000-4,999, \$.50.

THE FIGHT FOR LIFE

The National Safety Council's annual report for 1953-1954. 40 pages, 8"x11".

1955 SAFETY CALENDAR

The 1955 Edition of the popular National Safety Calendar—a thought-starting reminder for both workers and their families that safety is a 365 day a year job.

1954 POSTER DIRECTORY

The Directory of Occupational Safety Posters illustrates 744 posters in miniature. Classified and indexed for easy reference.

NATIONAL DIRECTORY OF SAFETY FILMS

A comprehensive list of more than 1,000 occupational and public safety motion pictures and slidefilms, both sound and silent. Complete source information and basis of availability is shown for each film.





Safety Incentives

Many new items have been added in the past year . . . The following four items are available with all emblems — 3/8" Green Cross, No-Accident Awards (1 to 40 years), Award of Honor, Award of Merit, Certificate of Commendation, Industry Contest Awards (1st, 2nd, 3rd place winners), National Fleet Contest Awards (1st, 2nd, 3rd place winners), Meritorious Service Badges (Past Safety Committee Member, Past Safety Committee Chairman, or Safety Suggestion Award).

1 Money Clip

3 Disc Bracelet

2 Disc Key Chain
Write for price on all incentives.

4 Belt Buckle

SCHAEFFER FINELINE BALL POINT PEN

A smart looking ball point pen with dark green barrel and gold cap. May be imprinted in gold.

AWARD TIE CHAINS

Unusual pendant tie chain of highly polished Hamilton gold plate. Available with the following: Award of Honor, Award of Merit, Certificate of Commendation, Industry Awards (1st, 2nd, and 3rd place winners), and National Fleet Contest Winner Awards (1st, 2nd, and 3rd place winners).

PLASTIC POCKET PIECES

The following plastic items have also been added to the line. All items are of tri-tone vinyl plastic with metallic foil emblems sealed in under clear vinyl. Available with 3/4" Green Cross, No-Accident Awards (1 to 40 years), Award of Honor, Award of Merit, Certificate of Commendation, Industry Contest Awards (1st, 2nd, 3rd place winners), Meritorious Service Badges (Past Safety Committee Member, Past Safety Committee Chairman, or Safety Suggestion Award).

1 Wallet (with or without pass case)

3 Pocket Memo 4 Key Case

2 Pocket Secretary

TIE BAR

Hamilton gold plated finish tie bar, available with 3/8" Green Cross, Meritorious Service Award or No-Accident Awards, 1 to 40 years.



MEET SAMMY — THE DYNAMIC, ANIMATED EMBLEM OF SAFETY!

Sammy Safety, the Green Cross Kid, will help add the touch of razzle-dazzle which will attract attention to your safety message. He's a "natural" — exactly the gimmick that's needed to help put across ideas, direct attention to news, and whet the interest of passive observers to safety bulletin boards and signs. Available in 9", 18" and 24" sizes, some motorized, and all in full color. Printed on 60 pound coated stock, varnished and mounted on .065 cardboard. All models have substantial self-locking easels. Write for prices.

NATIONAL SAFETY COUNCIL 425 NORTH MICHIGAN AVENUE CHICAGO II. ILLINOIS